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INFORMATION

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Brownfields Assessment Demonstration Pilot

Lake Conestee SC



Greenville County Soil and Water Conservation District

301 University Ridge, Suite 4500 - Greenville, SC 29601 - (864) 467-2756 - FAX (864) 467-7518

February 16, 2000

U. S. Environmental Protection Agency
OSWER Outreach and Special Projects Staff (5101)
401 Main Street, SW
Room SE 385
Washington, DC 20460

Subject: Brownfields Assessment Demonstration Pilots
Application for Lake Conestee, South Carolina

Dear Sirs/Madams:

On behalf of the Greenville Soil & Water Conservation District, Friends of the Reedy River, and the Conestee Foundation, I am very pleased to submit the enclosed application for a Brownfields Assessment Pilot Demonstration Project.

We have worked closely with Friends of the Reedy River over the past several years in developing a strategy to restore Lake Conestee. The proposed project is an essential step towards transforming this exceptional brownfield site, probably one of the largest repositories of contaminants in the Upstate region, into a 'jewel' of a public resource. The conversion of the 'cesspool' of Greenville into a public greenspace and environmental education center is an extraordinary conservation and restoration project, one of a lifetime.

Equally compelling is the impact that the degradation of Lake Conestee has had on the Village of Conestee. Our project will begin the process of reversing over 100 years of environmental injustice and provide the spark for redevelopment of this depressed but noble community.

We look forward to working with EPA and SCDHEC to implement this project and making our vision of the restoration of Lake Conestee, and the economic redevelopment of the Village of Conestee, a reality.

Sincerely yours,

Greenville County
Soil and Water Conservation District

Jason Gillespie
Programs Administrator

cc: David L. Hargett, Ph.D., Friends of the Reedy River
Dana Leavitt, Conestee Foundation

Project Title: Assessment and Restoration of Lake Conestee
and Economic Redevelopment of the Village of Conestee

Location: Greenville County, South Carolina

Population: approximately 700

Applicant Identification: Greenville County Soil and Water Conservation District

Project Contact: Jason Gillespie

Mailing Address: 301 University Ridge
Suite 4500
Greenville, SC 29601

Telephone: 864.467.2756
Fax: 864.467.7518
Email: JGillespie@GreenvilleCounty.org

Date Submitted: February 16, 2000

Project Period: April, 2000 - April, 2002

Community Background:

While Greenville County and the surrounding cities of Greenville, Mauldin and Simpsonville have experienced rapid growth and prosperity over the past 20 years, development and wealth have bypassed the unincorporated Village of Conestee. According to 1990 census figures the median household income in Conestee was \$25,938 in Block Group 4, 11 percent below the countywide median of \$29,088. In adjacent Block Group 5, the median income was \$26,625, eight percent below the county median. 3.1% of residents were unemployed in 1990, while 7.8% of residents had incomes below the poverty threshold in 1989.

Housing values in Conestee were extremely low relative to the County as a whole, based on 1990 census data. The median value of an owner-occupied housing unit in Greenville County was \$65,700. In Conestee Block Group 5, the median value is an astounding 77 percent lower: \$14,999. Housing values in Conestee were extremely low relative to the County as a whole, based on 1990 census data. The median value of an owner-occupied housing unit in Greenville County was \$65,700. In Conestee Block Group 5, the median value is an astounding 77 percent lower: \$14,999. The character of the housing is very similar in the portion of Block Group 4 that comprises the Conestee mill village.

Educational attainment is also startlingly low in the Conestee study area. According to the 1990 Census, 50 percent of residents of block Groups 4 and 5 aged 25 and over lack a high school diploma, compared to 28 percent countywide. Only five percent have a college or advanced degree, compared to 21 percent countywide.

Co-Sponsoring Partners: Friends of the Reedy River and the Conestee Foundation

Assessment and Restoration of Lake Conestee and Economic Redevelopment of the Village of Conestee

A Brownfields Assessment Demonstration Pilot

Project Overview

Background and Overall Goals

This project proposes to address an extraordinary brownfield site known as Lake Conestee, located on the Reedy River in the center of Greenville County, South Carolina (Figure 1). This is not the typical urban industrial brownfields site with antiquated industrial works and the ubiquitous suite of industrial contaminants. Rather, Lake Conestee is a millpond, formerly 140 acres, that has been the repository of all of Greenville's industrial and municipal wastes and discharges for over 200 years. This lake was once the focus and inspiration of the adjacent village of Conestee which was built to house the local population working at Conestee Mills.

Lake Conestee has captured and filtered the industrial dregs of a 65-square mile urbanized watershed since the original Conestee dam was constructed by slave labor in 1838 (Figure 2). The lake is now volumetrically over 95 percent silted-in. The sediments generally are perceived to be contaminated with the chemical heritage of Greenville's rich industrial history. Ironically, this area was in the heart of the prime hunting grounds of the Cherokee, who named it *'Conestee'*, meaning *'land of beautiful waters.'*

Lake Conestee received the brunt of the watershed's industrial and municipal wastewater discharges until the early 1980's, when the Clean Water Act of 1972 began to have some effect locally. Prior to that numerous textile mills and dyeing operations, metalworks, and other industries within the watershed recklessly discharged thousands of pounds of nutrients, wastewater solids, and industrial chemicals to the Reedy each day. It can be said that Greenville became the *'textiles center of the world'* on the back of the Reedy. Prior to the effective implementation of the Clean Water Act, and the NPDES program, there was little restriction on the discharges of municipal and industrial chemicals to the Reedy and its tributaries.

Limited sampling has shown highly elevated concentrations of chromium, copper, zinc, and lead in Lake Conestee sediments, as well as extremely high COD and nutrient levels. Water quality sampling in the reach of the Reedy below the lake indicate the river is impaired for aquatic life in that reach because of chromium concentrations in sediments. Based on the industrial history of the watershed it is quite likely that metals, as well as PAHs, PCBs, and other industrial contaminants are tied up in the sediments. Further, as most of the watershed was in agricultural production prior to WWII, the potential exists for significant pesticides contamination (organochlorine types) in sediments from that era.

The community of Conestee, built around the mill, was once a thriving community and actually had electricity before the City of Greenville. At one time the mill employed a labor force of 225, and operated three shifts. The mill ceased operations in 1972. More recently the community has become extremely depressed, and now suffers with low-income levels, low housing values, and low education levels.

The non-profit partners in this proposal, Friends of the Reedy River (FoRR), and the Conestee Foundation (CF), in collaboration with the Greenville County Soil & Water Conservation District (the 'District'), propose to facilitate the restoration of Lake Conestee. Through this process, a property that has been generally regarded as the 'cesspool' of Greenville for nearly one hundred years, will be transformed into a managed wetlands complex with an advanced environmental teaching center. To accomplish this we will bring together a diverse team of natural resources agencies and environmental interests to participate in rehabilitation projects. Our team has already secured an agreement to purchase Lake Conestee. We have also initiated a dialogue with the US Army Corps of Engineers to pursue their involvement in an aquatic restoration, wetlands management and environmental education facility. Some of the projects that have been discussed with the Corps and other agencies include minor repairs on the dam, and stabilizing and regulating the flow regime to minimize disturbance of contaminated lake sediments. Some water control structures may be constructed in some of the inner embayments and sloughs to effect improved stormwater detention, water quality polishing, sediment removal, and waterfowl habitat enhancement. Extensive streambank stabilization

projects, bottomland forest improvement projects, and wildlife enhancement projects will be integrated into the management plan.

The managed wetland will serve as a community resource and help achieve the larger goal of creating a greenway along the entire length of the Reedy River, which runs 73 miles from the foothills of the Blue Ridge mountains through downtown Greenville and south to Lake Greenwood. Already several publicly-owned properties adjoin Lake Conestee, including Greenville's minor-league baseball stadium (owned by the City), a closed City of Greenville landfill, and land owned by the local sewer authority.

Before this vision of restoration and conversion to a managed resource can be achieved, the lake must first be assessed. This proposal addresses tasks intended to examine the lake's health and potential impacts of any contamination on human health and natural resources, and identify any needed corrective actions. A critical, concurrent step will be to work with the community to explain the assessment process and to better understand the impacts of the lake on the community. Finally, the project will identify potential opportunities for creating jobs and enhancing economic opportunities in the community through the restoration of the lake.

Project Specific Objectives

The scope of the project proposed here is: 1) conduct an assessment of the lake to determine the nature, extent, and range of contamination present in the sediments, soils, and waters of the lake; 2) identify zones for priority environmental restoration; and 3) work closely with the community to advise them of the assessment and clean-up (if necessary) processes, and to discover any other health concerns that may be related to the lake. In the course of the community activities we will work closely with businesses and local agencies to explore and develop job opportunities related to the restoration of Lake Conestee.

Project Strategy

Our assessment will address contamination potential in lake sediments, alluvial soils in the in-filled portions of the lake, surface water quality, and ground water quality. Lake biota will also be assessed as appropriate. Through a screening process, portions of the lake that may require further study or corrective action will be identified.

A critical component of the project will be the community involvement activities. Because of the close relationship between conditions of the lake and the depressed economic condition of the community, our interaction with the local population is vital. It is critical that members of the community understand the assessment and potential cleanup processes. It is also essential that the assessment properly take into account any potential community health issues that may relate to the present and historical condition of the lake.

Authority

The government agency sponsoring this Brownfields Pilot is the Greenville County Soil & Water Conservation District ('the District'), a unit of the South Carolina Department of Natural Resources. As an agency of the State, defined and authorized in Title 48, Chapter 9, South Carolina Code of Laws, the SCDNR and its Conservation Districts are responsible and authorized to provide technical assistance and to manage conservation related projects. Letters from the Director of the Land, Water and Conservation Division of SCDNR, and the SCDNR Counsel of the South Carolina Attorney General's Office, verifying the authority of the District to manage these projects and its eligibility to receive funds under CERCLA Section 104(d) are provided as Attachments A and B, respectively.

Budget

Brownfields Assessment Demonstration Pilot

Budget Categories	Project Tasks							Total
	Task 1	Task 2	Task 3	Task 4	Task 5	Task 6	Task 7	
Personnel	4000	3000	18000	15000	3000	3000	3000	49000
OH + Fringe Benefits	7200	5400	32400	27000	5400	5400	5400	88200
Travel	400	0	400	0	0	0	0	800
Equipment	0	0	4000	0	0	0	0	4000
Supplies	400	100	500	100	100	100	100	1400
Subcontracts	2000	0	50000	0	0	0	0	52000
Other Direct Costs	2000	100	2000	100	100	100	100	4500
Total	16000	8600	107300	42200	8600	8600	8600	199900

Task 1: Development of Community Involvement Plan and Community Meetings and Outreach Activities.

Task 2: Development of Sampling and Analysis Workplan.

Task 3: Field Operations – Sampling and Analysis.

Task 4: Risk Assessment.

Task 5: Report on Assessment.

Task 6: Report on Wetlands Management.

Task 7: Report on Community Redevelopment Opportunities.

Budget

Greenspace Project

Budget Categories	Project Tasks						Total
	Task 1	Task 2	Task 3	Task 4	Task 5	Task 6	
Personnel	2000	2000	2000	2000	2000	2000	12000
OH + Fringe Benefits	3600	3600	3600	3600	3600	3600	21600
Travel	200	200	200	200	200	200	1200
Equipment	200	200	200	200	200	200	1200
Supplies	200	200	2800	500	2000	200	5900
Subcontracts	200	200	4000	200	200	1600	6400
Other Direct Costs	200	200	200	200	200	200	1200
Total	6600	6600	13000	6900	8400	8000	49500

Task 1: Resource Inventory – Lake Conestee.

Task 2: Habitat Restoration.

Task 3: Trail and Boardwalk Development.

Task 4: Security and Posting.

Task 5: Canoe Take-Outs / Put-Ins (2)

Task 6: Access Improvements.

Responses to Evaluation Criteria

1. Problem Statement and Needs Assessment

Effect of Brownfields on Community

The Conestee community is defined as the original Conestee Mill village plus the adjacent newer development around the southwest lakeshore (Figure 3). This includes all of Block Group 5 and part of Block Group 4 in Census Tract 29.01 of Greenville County. The population of this area was 595 according to the 1990 Census and the Greenville County Redevelopment Authority, and is projected to be 700 today.

Contamination History: To understand the impact of Lake Conestee on the economic and social aspects of the surrounding community requires some explanation of the history of the lake, the mill, and the village of Conestee. The first industry in the area, a gun factory, began operations in 1812. Later, a paper factory located on the site. Lake Conestee was first created in 1838, when slave labor was used to construct a wooden dam across the Reedy River approximately seven miles south of Greenville, South Carolina. Three years later, the dam began providing power to a mill that produced cotton textile goods, including uniforms for the Civil and First World Wars. In 1926, the original dam was replaced by one of stone masonry construction, which stands today, 500 feet long and 26 feet high. The 1926 dam impounded an area of approximately 140 acres.

Mill owner Vardry McBee constructed the adjoining Village of Conestee in the 1840's to provide housing and services to mill employees, and the Conestee community was born. In its heyday in the late 1800's, Conestee thrived. The village had electricity before Greenville, generated by the hydropower of the dam. Although the mill ceased textile operations in 1972, the community of approximately 700 people remains. The mill buildings are currently used as warehouses,

The first community-wide wastewater treatment works to serve Greenville was constructed in 1892, discharging to the Reedy two miles upstream of Lake Conestee. After its construction, continued degradation of the lake resulted in an action brought by Conestee Mills against the City of Greenville in 1925 (160 S.C. 10 [1931]). In this case the plaintiff alleged that *"by reason of the discharge of the untreated sewage into the river the water has become putrid and the air contaminated; that the sewage is deposited along the banks of the pond and spreads over the entire area thereof on plaintiff's land; that the fish in the pond have been killed; that the odors and vapors from the river have become so foul and offensive as to cause the most unwholesome conditions and the greatest annoyance and discomfort; that defendant's method of disposing of sewage is antiquated and dangerous, and that it has negligently and willfully failed and refused to properly treat and purify the sewage.... And these acts of the defendant were and are grossly negligent, creating a nuisance by which plaintiff has been deprived of the use of the water in pure and uncontaminated condition, its real estate has been damaged, and its property rights have been otherwise injured."* This case was ultimately heard in 1931 by the Supreme Court of South Carolina, which decided in favor of the plaintiff and ordered the City to clean up its sewage operations.

The above case, recognition of the impacts of discharges on the Reedy and Lake Conestee, and the development of more sophisticated treatment technology resulted in significant upgrades of the Greenville sewage treatment works during this period. Still, as the community grew, and as industrial discharges continued, the Reedy functioned as the discharge of convenience locally, and Lake Conestee remained the filter for everything that went into the Reedy. According to press reports, *"Meat processing plants in Greenville reportedly dumped their by-products into the Reedy. Printing plants dumped their ink. Textile plants poured in their dyes, turning the lake black."* By the 1950's and 1960's Lake Conestee was generally regarded by the community as so polluted as to be unsuitable for human contact of any sort. Local folk came to refer to the lake as 'Lake Co-Nasty' because of the odors, obvious pollution, and routine fish kills.

Throughout a period of over 50 years, from 1925 until major treatment works improvements at the Mauldin Road facilities and the implementation of pre-treatment programs in the 1980's, numerous textile dyeing operations, the many mills, and supporting metalworks within the watershed recklessly discharged thousands of pounds of nutrients, wastewater solids, and industrial chemicals to the Reedy above Lake Conestee each day. It can be said that Greenville became the *'textiles center of the world'* on the back of the Reedy. Prior to the effective implementation of the Clean Water Act of 1972 and its NPDES program, there was little restriction on the discharges of municipal and industrial chemicals to the Reedy and its tributaries.

The accelerated siltation of Lake Conestee has been a story in its own right. The original lake was reportedly about 140 acres. As indicated in aerial photographs from 1943 the water surface was approximately 90 acres (Figure 4A). Based on 1995 aerial photos, there was at that time approximately 20 acres of impounded area remaining (Figure 4B). Today, under full-pool (top-of-dam) conditions, approximately 15 acres of the original lake area remains. Beavers have reclaimed another 15 acres in the western portion of the original lake. These shallow ponds are heavily used by waterfowl and other wildlife.

Major projects that have contributed to the rapid siltation include the construction of the Greenville Army Air Base (subsequently Donaldson Air Force Base and now Donaldson Industrial Park), construction of Interstate 85, the construction and operation of Greenville's primary wastewater treatment works (now the Western Carolina Regional Sewer Authority's (WCRSA) Mauldin Road facility) two miles upstream, and the adjacent former City of Greenville landfill. In addition, the development and build-out of the Reedy watershed have continuously contributed to siltation since WWII, and still continue to do so. In addition, urban and suburban runoff result in a brutally flashy hydrograph rich with the ubiquitous contamination associated with urban impervious surfaces.

Very little data exists with regard to the levels of contamination of the lake sediments. Limited sampling by SCDHEC in the mid-1970's confirmed highly elevated concentrations of chromium, copper, lead and zinc in sediments. SCDHEC has periodically sampled water quality in the lake, but because the lake has been privately owned their sampling has been sporadic. SCDHEC's ambient water quality sampling program has repeatedly confirmed that the reach below Lake Conestee has sediments with chromium concentrations sufficient to classify those as impaired for aquatic life. Large quantities of hexavalent chromium were historically used in dyeing operations at various textile mills in the watershed. Considering the textile operations, and related support industries prevalent in the industrial portions of the watershed over the years, it is likely that the sediments contain significant quantities of heavy metals, PAHs and possibly PCBs. Likewise, residues of organochlorine pesticides such as DDT may be present in various strata deposited during periods of cotton farming in the surrounding watershed. USEPA has certified that it has no record of contamination of the lake or any pending actions with regard to the lake (Attachment C). The SCDHEC Division of Water Quality has provided a letter of support for the proposed project advising their concern for potential releases of contaminated sediments from the lake in the event of a dam failure (Attachment D).

It is obvious that as the nature and degree of contamination has varied over the years, so has the pattern of deposition with the lake sediments. It is plausible that the older sediments were likely more contaminated, and as the river delta has migrated out into the lake, and toward the dam, the more contaminated sediments have generally become covered with more innocuous sediments. This theory has not been confirmed by any physical sampling, however.

Community Economic Profile: While Greenville County and the surrounding cities of Greenville, Mauldin and Simpsonville have experienced rapid growth and prosperity over the past 20 years, development and wealth have bypassed Conestee. According to 1990 census figures the median household income in Conestee was \$25,938 in Block Group 4, 11 percent below the countywide median of \$29,088. In adjacent Block Group 5, incomes were 8 percent below the county median. An estimated eight percent of residents were below the poverty threshold in 1989.

Housing values in Conestee were extremely low relative to the County as a whole, based on 1990 census data. The median value of an owner-occupied housing unit in Greenville County was \$65,700. In Conestee Block Group 5, the median value is an astounding 77 percent lower: \$14,999. The character of the housing is very similar in the portion of Block Group 4 that comprises the Conestee mill village.

Educational attainment is also startlingly low in the Conestee study area. According to the 1990 Census, 50 percent of residents of block Groups 4 and 5 aged 25 and over lack a high school diploma, compared to 28 percent countywide. Only five percent have a college or advanced degree, compared to 21 percent countywide.

Site Identification: The Lake Conestee site has been a focus of attention for FoRR since our organization in 1993. We have been working toward developing approaches and means to acquire and restore Lake Conestee since we first examined it and saw its great potential. Research into the history of the village of Conestee, the mill, and the lake identified the potential for contamination of the lake, and the links between the health of the lake and that of the community. Concerns expressed by local citizens, businesses and

agencies have confirmed the perceptions of contamination of the lake and the effect of the lake's condition on local community, real estate values, and the economy.

Value added by Federal Support

FoRR has already taken action to acquire Lake Conestee, a site of known contamination. This is an extraordinarily bold initiative as no private or commercial investor or agency would possibly consider taking on the liability for this contaminated site. Without the acquisition proposed by FoRR, this site would be left in limbo indefinitely, and might eventually result in costly litigation. Worse yet, the dam could fall into disrepair, and the contaminated sediments could begin to mobilize downstream, destroying all river biota and damaging the associated riparian ecosystem. Such a scenario would also threaten Boyd's Mill Pond, Lake Greenwood, and the Greenwood municipal water supply.

Federal support is essential to enabling our local program team to achieve our vision of a restored Lake Conestee. Conducting a thorough assessment of the environmental concerns associated with the lake is a requirement for obtaining a 'Voluntary Cleanup Contract' from SCDHEC. Without that agreement FoRR and the Conestee Foundation will not be able to acquire the lake. Our restoration project will also benefit from support from EPA, NRCS and other federal agencies on a variety of technical issues. Once the nature of contamination is defined, we would benefit from assistance with selection of vegetative species suited for phytoremediation of site-specific compounds. Similarly, we would benefit from consultation and technical expertise related to wetlands enhancement and wetland species selection. If any unique risk issues are identified, we would benefit from support on risk assessment and risk interpretation issues. We would also benefit from expertise in addressing the environmental justice issues in the village of Conestee. Lastly, we could use agency support in developing an environmental education curriculum that incorporates all of the lessons learned at the site, with regard to issues on wastewater management, soil, water, and sediment contamination, solid waste management, recycling, water quality sampling, and wetlands management.

FoRR is currently under contract to SCDHEC to execute a 319 Program Grant entitled *"Identification and Restoration of Compromised Riparian Areas and Streambanks to Address Water Quality Impairments in the Reedy River Watershed"*. The scope of this project is to inventory and assess the riparian resources in the entire Reedy River watershed, classify those resources, identify areas where the riparian resources have been compromised, and to facilitate restoration of riparian areas wherever practicable. This project is related to the Lake Conestee proposal in that it is identifying potential riparian greenspace areas that can provide continuity to a future Reedy River greenway system. We envision the Lake Conestee greenspace being a key hub of that greenway network.

By performing the pilot on Lake Conestee we will also be able to encourage other federal agencies to participate in restoration activities, to include the Corps, USF&WS, and NRCS. Already, our Conestee Project Team has conducted tours of the lake for numerous agency staff to include each of these federal agencies, as well as staff from SCDNR, SCDHEC, Greenville County, the City of Greenville, the Greenville County Soil & Water Conservation District, and Ducks Unlimited. We have attached letters of endorsement for our project from each of these organizations.

A completed assessment, and eventually a 'clean bill of health', will also open the door for development of the environmental education venues at the site. This clearance will also help us in attracting private, foundation, and corporate financial support for the restoration, education, and greenspace development projects.

2. Community-Based Planning and Involvement

Existing Local Commitment

Friends of the Reedy River has spent more than three years negotiating the purchase of the Lake Conestee property. To avoid real estate speculation and publicity, which could jeopardize the property transfer, and the restoration initiative, project plans have necessarily been kept confidential. Further, we have deliberately kept the visibility of this project low to prevent any potential public alarm or confusion related to the assessment project. As of January 31, 2000, FoRR has signed an Agreement to Purchase the lake parcel with the current owner. FoRR is presently in the process of securing the funds for property and related costs. The deed transfer will be finalized by April 30, 2000. At that time, the transaction will be made public and community involvement will be pursued immediately.

We have had extensive contact and numerous conversations with members of the community over several years in the process of exploring the lake and its surroundings. The interest in restoration and conversion of the lake into an attractive resource for the community is obviously welcomed by all. At the same time, many local citizens and adjacent landowners continue to be quite fearful of the lake and its unknown contents, and anxious about the potential for health issues related to the lake.

Local business owners are strongly interested in restoration of the lake and the redevelopment of the community as evidenced by the attached letter from Mr. H.J. Brand (Attachment E), current owner of Conestee Mills and Lake Conestee. Conversion of the lake into a point of positive focus in the community is generally considered as the first step toward improving surrounding real estate values and attracting development interest.

Sponsoring Organizations: The following organizations are the key sponsors for this project. Appendix 1 provides a summary of all sponsoring organizations as well as all partnering organizations, with contacts and brief profiles. Endorsing letters of support are provided as Attachments.

- *Greenville County Soil and Water Conservation District*
- *Friends of the Reedy River, Inc.*
- *Conestee Foundation, Inc.*

Partnering Organizations: Our project team has contacted all state and local agencies and units of government that can add value to the Lake Conestee assessment and restoration process and the economic redevelopment of the Village of Conestee. We have been highly successful in obtaining support and endorsements from essentially every organization that has learned about the proposed project. The following organizations are our proposed partners. All organizations listed are on record as supporting the project and committed to provide support through technical assistance and consultation, assistance with public involvement, or service on an advisory council.

- *South Carolina Department of Health and Environmental Control, Brownfields Program, Division of Site Engineering and Screening*
- *South Carolina Department of Health and Environmental Control, Division of Water Quality*
- *South Carolina Department of Natural Resources, Land, Water, and Conservation Division*
- *South Carolina Department of Natural Resources, LWCD, Greenville Field Office*
- *Appalachian Council of Governments*
- *Greenville County Re-Development Authority*
- *Greenville County Recreation District*
- *Natural Resources Conservation District (NRCS-USDA)*
- *Foothills Resource Conservation and Development District*
- *U.S. Fish and Wildlife Service (USF&WS-USDO)*
- *U.S. Army Corps of Engineers, Charleston District (USDOD)*
- *Greenville County*
- *City of Greenville*
- *City of Mauldin*
- *Upstate Forever*
- *Sierra Club, William Bartram Group*
- *Ducks Unlimited*
- *Reedy River Missionary Baptist Church*
- *H.J. Brand, Inc.*

Local Brownfields Experience: In the village of Conestee there has been no specific or formally administered 'brownfields' assessment and cleanup activity. Likewise, there has been no specific project experience in the Conestee community with innovative brownfields planning, pollution prevention, or sustainable development. Other brownfields activities in the surrounding municipalities and on private industrial and commercial sites have had no direct impact on the community. However, involvement and experience by other partnering organizations (SCDHEC, Greenville County, City of Greenville, ACOG) on related projects will have benefit to this project.

Public Health Issues: Any relationships between the contamination history of the Reedy River and Lake Conestee and community public health issues are unknown. This project proposes to address these issues, among others. It is known that the local population has lower incomes and lower educational attainment than is typical for the area. The surrounding community also has a higher proportion of females and elderly than would be expected.

It is also known that numerous local citizens routinely utilize Lake Conestee for fishing and hunting, and that the game and fish taken are consumed. There is no information on the frequency of these activities, the number of resources harvested and consumed, or potentially related health effects.

We also believe that numerous homes in the community continue to utilize groundwater wells as a source of potable water. There is no record of how many wells are used, their specifications, maintenance or contamination history, water consumption from these wells, or any potential related health effects.

Community Involvement Plan

Methodology: The Village of Conestee is a small unincorporated community (Figure 3). While no neighborhood organization exists, we will access residents both directly and indirectly with a three-pronged strategy: via neighborhood churches, local businesses, and door-to-door visits.

Church Outreach - There is a large concentration of churches in the Conestee community, diverse in size, denomination, and membership. An inventory of churches in the neighborhood lists:

- The Church of God of Prophecy, 2nd Street, Pastor: Barry Manley
- Conestee Church of God, 87 Main Street, 277.1496
- Conestee Assembly of God, Main Street, 299.1427
- Deliverance Church of God, Main Street
- First Baptist Church of Conestee, 16 2nd Street, 277.7537, Pastor: Tony J. Finney
- McBee United Methodist Church, 53 Main Street, Pastor: Rev. Thomas Field
- Reedy River Missionary Baptist Church, 1012 Mauldin Road (at Conestee Road), 277.0364, Pastor: Rev. SC Cureton
- Reedy River Presbyterian Church, 46 Main Street, 277.5455, Pastor: Jay Nelken
- Victory Chapel Baptist Church, 10 South Pine Lake Circle (at Conestee Road), 299.3970, Pastor: Tommy Ramey

While not all members of these churches are Conestee residents, and not all Conestee residents may attend church in the area, church outreach will certainly reach a very substantial portion of the community. At each church, we will meet with the minister and ask for his/her advice and insights on the project and for assistance in facilitating the involvement of community residents and identifying local leaders. We will ask permission to post flyers in the building, place announcements in Sunday bulletins, and speak at services to promote community meetings and public participation.

Business outreach - In addition to church outreach, we will contact local business owners. There are several retail and industrial enterprises within this small community, including:

- A+ Tire and Automotive, 513 Conestee Road, 422.9060
- H J Brand, Inc./Conestee Industries textile dealer, 1 Spanco Drive, 299.0200
- Main Sail Marine, 1 Main Street, 299.1092
- Mascoe Systems Corporation textile machinery, Spanco Drive, 277.3245
- Midway Appliances and Parts, 522 Conestee Road, 422.1687
- Peden Textile Equipment Co., 910 Fork Shoals Road (at Main Street), 277.2022
- Pit Stop convenience store, 202 Conestee Road, 422.9292
- Pumpers Premium Store 5, 395 Conestee Road, 299.3536
- Roy Metal Finishing Co., 112 Conestee Road, 277.0420
- The Sign Shoppe, Conestee Road, 277.8244
- U.S. Post Office, 16 Main Street, Conestee (29636) 277.2016

As with the churches, we will meet with business owners, ask for their input and for their permission to post flyers promoting community meetings

Door-to-door Canvassing – We will develop flyers summarizing the proposed project and inviting residents to community meetings. Project staff from the District, FoRR, and associated team members will

distribute a flyer to every household in the target area, speaking personally with as many residents as possible and documenting all feedback. During the door-to-door survey information will be solicited and compiled with regard to profile of the residents, use of the lake, water supply, and relevant health issues. All representatives will be trained to treat the project as a matter of shared concern and to approach residents as partners whose input is valued.

Community Meetings -The community meeting will be scheduled at a local church during evening hours. The public meetings will be formally noticed to the public in the Greenville, Mauldin and Simpsonville newspapers in accordance with SCDHEC and EPA public involvement protocols. Representatives from the sponsoring organizations will present the project idea and allow time for questions. Maps, photographs, and other graphic information will be displayed for viewing. Attendees will be broken up into small groups to brainstorm ideas and concerns, with special emphasis on how to maximize benefits to the community. Volunteers will be recruited for the a project advisory council.

Advisory Council – A Lake Conestee Advisory Council will be established for the purpose of providing feedback on project progress, proposed ideas, and allocation of resources. Volunteer members will be recruited from various stakeholder groups, including neighborhood residents, local business owners, local churches, environmental scientists, bankers, real estate professionals, municipal and regional planning agencies, chambers of commerce, civic clubs, and educators. Each Advisory Council member will also join one of four committees, which will include health and aesthetics (to include litter and vandalism control, and beautification), greenspace / habitat management, education, and economic and community development. Committees will be charged with identifying strengths, weaknesses, opportunities, and threats relating to their focus area, formulating action plans, and recruiting in-kind services. The full Advisory Council will meet quarterly, with committees meeting monthly. Staff support will be provided by the project team.

Newsletter - A quarterly newsletter describing project progress and opportunities for involvement will be distributed quarterly to each household in the target area as well as to neighborhood churches and businesses, media outlets, and any other party expressing interest.

"Open Lakes" - As the project progresses, project sponsors and the Advisory Council will hold periodic open houses, or, in this case, "open lakes." Tours of the project site will include whatever is currently safe to access, project restoration and community redevelopment scenarios will be presented, and there will be opportunities for questions and answers and volunteer recruitment.

Special Communication Needs - The 1990 Census found that 99 percent of the community's households are English-speaking, with the remaining one percent (four households) speaking a language other than English or Spanish but not linguistically isolated. If we determine that some residents are non-English-speaking, we will develop bilingual copies of any newsletters and flyers and use our local contacts to identify non-English speaking households to receive them.

The quarterly newsletter described above may be limited as a communication tool, however, because of illiteracy among the residents. While no statistics on literacy in the neighborhood exist, in 1990 the Census found that 50 percent of adults aged 25 and over lacked a high school diploma, with 24 percent having less than a ninth grade education. To ensure that residents who cannot read the newsletter remain informed, we will enlist Advisory Council members who are neighborhood residents to go out and speak to their neighbors and at their places of worship to aggressively promote open houses.

Environmental Justice Plan

Economic Profile: As previously discussed, the Conestee community is generally a low- to moderate-income area, with very low housing values. The Greenville County Redevelopment Authority has defined the community as being in a state of decline with a highly dilapidated housing stock. The 1990 Census found that 41 percent of housing units were built before 1940, as compared to nine percent in the county as a whole. Compared to countywide data Conestee residents have significantly less equity in their homes and therefore are likely to be disadvantaged financially.

Racial Diversity: Conestee is not a predominantly minority community. Ninety-one percent of Conestee residents in 1990 were white (compared to 81 percent in Greenville County). Participation of the existing minority population will be promoted by outreach to churches, at least one of which, Reedy River Missionary Baptist, has an extremely large and predominantly African-American congregation, and by the representation of minority residents on the Advisory Council.

Plans for Economic Revitalization: As this project proceeds and the perception of Lake Conestee improves, the project team will work with the GCRA to pursue funding for the improvement of local housing stock and for infrastructure improvements. For example, no-interest and low-interest loans would encourage home improvements. All potential avenues for federal, state, local, and private funding of economic stimulation initiatives will be explored.

Potential for Jobs Creation: The proposed project directly offers potential income-producing opportunities for local citizens. The community-involvement program will depend on local community knowledge and potential exists for part-time employment in community liaison roles. In addition, there will be needs for coordination within the community for the physical lake assessment. Those needs will include coordination with landowners for lake access, and planning and coordination of field activities.

The Lake Conestee Restoration Project will create numerous job opportunities in the community for support of restoration activities. These projects may include construction and management jobs for dam repair, lake access, wetlands improvements, construction of the environmental education center, and related infrastructure for the facilities. As the project develops and the greenspace and greenway initiatives are realized there will be a variety of maintenance, and resource management job opportunities. The environmental education center will result in several full- and part-time job opportunities. The restoration project will change public perception recognize Lake Conestee as a recreational destination for the community, and will create a demand for recreational services such as a canoe livery and bicycle rentals.

3. Implementation Planning

Government Support

The governmental agency sponsoring this project is the Greenville County Soil & Water Conservation District. The District is a unit of State government managed under SCDNR. As reflected in the attached Memorandum of Understanding (MOU) the District will be responsible for managing and administering the project and collaborating with the non-profit team members (Attachment W). FoRR and CF will be directly involved as sub-grantees in administering and performing the project. These organizations have the direct personal knowledge of the lake, history and site issues that will enable effective, timely implementation of the project.

Beyond the roles of the sponsoring agency / organizations, this project has been endorsed by numerous federal, state and local agencies as listed previously. Letters of endorsement are attached.

Site Selection and Environmental Site Assessment Plan

Site Selection: FoRR has recognized since its founding in 1993 that Lake Conestee is an exceptional resource that will require exceptional solutions. Our research has confirmed the potential contamination but uncertainty about the precise nature and extent of those contaminants.

The potential that Lake Conestee holds for restoration to public greenspace makes this assessment compelling. The uncertainties associated with the contamination of the lake, combined with the impacts of the lake on the surrounding community and the unknown significance to public health and the environment should make this assessment a priority for agency commitment.

Why Public Funding is Needed: Lake Conestee is a resource that has long been a challenge to Greenville County and the surrounding municipalities. Generally known to have significant yet unknown contamination issues, the lake has been consistently avoided by all agencies. Reportedly, the City of Greenville and other entities have considered acquiring the lake previously only to retreat because of uncertainties associated with the lake's contamination. Likewise, the owner has repeatedly attempted to market the lake, and has found no market interest, ostensibly due to the contamination issues.

Ownership: FoRR and CF have already negotiated an Agreement to Purchase Lake Conestee from the present owner, H.J. Brand, Inc. This agreement (available for review upon request) allows for closing on 30 April 2000. Given the surrounding publicly owned lands access to the property will not be an issue.

Responsibility for Contamination: Based on the known history of contamination of the lake, including the history of contamination litigation settled on behalf of the previous owners, and the upstream sources of wastewater, industrial contaminants, and sediment, there is no question that the current and preceding owners did not cause the contamination of the lake. Clearly the sources of industrial contamination of the lake are too numerous to account for and include sites throughout the upper Reedy River watershed.

Furthermore, the public record shows the mill stopped manufacturing operations in 1972, prior to Mr. Brand's acquisition of the property. Lastly, the current owner has used the mill facilities solely for the purposes of warehousing since he acquired them in 1977. Mr. Brand has never discharged any wastestream to the lake or actively managed the lake in any way. FoRR and CF, as non-profit environmental advocacy organizations, have never been involved in any activities that may have contributed to the contamination of the lake.

Site Assessment Activities to Be Conducted: Unlike most 'conventional' brownfields in industrial settings, Lake Conestee is a large, discrete natural site that comprises a large 'sink' of municipal and industrial contaminants. These contaminants were not discharged on-site, but were deposited variably over time with the accretion of sediments in an advancing river delta.

Given the nature of present day Lake Conestee, much of the 'lake' (~30%) is now trafficable deltaic deposits. The other significant portions of the lake are either jurisdictional wetlands (~35%), or inundated (~30%) all of the year, either by the remaining lobes of the lake, sloughs, or the Reedy River. There remaining area (~5%) consists of upland islands (including Taylor Island) from the original lake. These discrete areas each represent unique challenges for environmental sampling.

Site Activities: Site activities will begin with a thorough review of relevant background information to include research on the nature of historical upstream contamination sources. The history of the Conestee dams and lake will be assessed from available documents and historical aerial photos to better understand contaminant deposition processes relative to migration of the river delta over time. This information will provide insights into identifying areas of sediments or other media where the contaminants may be concentrated in zones that may provide an exposure pathway to humans or wildlife.

Risk Perspective - A preliminary analysis of appropriate site screening and sampling activities has been conducted to aid in resource allocation. Because of the unique nature and size of the site we looked at development of a sampling strategy from a risk assessment perspective. From an ecological point of view our concerns would be exposure to sediments, soils, and surface water. From a human health perspective, the risk considerations are the same media plus groundwater. Soils and sediments would be examined to consider both incidental ingestion and dermal contact for both adults and children. For surface water the human health issues would examine these exposure pathways as well as fish consumption. Exposures to groundwater would consider ingestion and dermal contact concerns.

Phase 1 – Because of the lack of background data on environmental quality in Lake Conestee, we propose to phase the assessment. The first phase would involve the collection of approximately 10 surface water and 10 sediment/soil samples for full EPA Target Compound List/Target Analyte List (TCL/TAL) analysis. Based on the results of these analyses, a site-specific analyte list would be developed for the following assessment phases. All sampling will focus on the depth zones (typically 0-1 ft) where risk of exposure to the sediments, soils, or water column is greatest.

Phase 2 – In the second phase of sampling we are assuming the site-specific compound list may be reduced to the priority metals plus pesticides and PCBs, as these are the compounds most likely to trigger clean-up actions in this setting. If the Phase 1 sampling indicates otherwise, the site-specific target compounds will be broadened.

Sample locations will be selected for representativeness of the different areas of the lake, and to provide a statistically defensible sampling program. We anticipate approximately 28 sediment samples, taken from the shoreline environment (10), mid-lake environment (8), and the river channel (8). We estimate approximately 18 surface water samples, six (6) each from those same three settings. We anticipate roughly 20 sediment and/or soil samples from the wetlands/silted-in portions of the lake. We expect approximately 10 surface water samples from the wetlands portions of the lake. In addition, we will sample groundwater wells currently used for potable water within the community. These sampling points will be selected based on a potable wells survey of the community. We have allowed for sampling and analysis of 20 wells.

The Phase 2 sampling program allows for 48 sediment/soil samples and 48 surface water/ground water samples. The data derived from this sampling and analysis program will be used to conduct a risk assessment of the exposures to human health and the environment. Depending on the outcome of this program, additional sampling may be proposed to address potential contaminants in fish and other biota.

Sampling and Analytical Protocol and Quality Assurance – All sampling activities will be conducted according to USEPA Region IV protocol and good standards of practice. Sampling and Analysis and Health

and Safety Plans will be developed and submitted to SCDHEC and EPA for review as required. All analytical work will be conducted by certified labs. Data validation will be conducted according to standard protocol. Risk assessment work will be performed by qualified scientists and according to approved methodology. Results will be submitted to SCDHEC and EPA for review.

Reuse Planning and Proposed Cleanup Funding Mechanisms

As stated elsewhere in this proposal the site is proposed to become a managed wetland and environmental education center to serve the local /regional community. The long term management of the project will be under the auspices of the Conestee Foundation. Future construction and management activities within the lake area will be determined based on the findings of the assessment and the technical analysis of habitat and wetlands management alternatives. The other future development project will be the development of the environmental education center on Taylor Island.

Funding of potential cleanup activities may come from federal, state, or local agency sources. In particular the Corps-Charleston District has indicated strong interest in the development of a major aquatic restoration project at the site to include development of the environmental education center. The Corps interest is strong because of the clear impact to Lake Conestee from the construction of the Greenville Army Airfield (Donaldson AFB) during WWII.

Other agency sources for funding and/or technical expertise include NRCS, US Fish & Wildlife Service, and allied USEPA programs. For recreational development a variety of state programs exist through the SCDNR, SCDHEC, and the South Carolina Department of Parks, Recreation and Tourism. Strong interest has developed locally for greenspace initiatives, which may be funded through local bonding authority. Other funding sources may include grants through private foundations and corporate contributions. Lastly, in the case that large, extensive, actionable concentrations of contaminants are discovered, it may be appropriate to pursue potentially responsible parties within the watershed to recover costs under the provisions of CERCLA.

Flow of Ownership Plan

The site is currently owned by H.J. Brand, Inc. Friends of the Reedy River, a 501(c)(3) nonprofit organization, in collaboration with the Conestee Foundation currently has a legal Agreement to Purchase the property. The funding for the purchase and certain related costs and some management activities will likely come from the State of South Carolina's Colonial Pipeline Settlement Fund negotiated in 1998. FoRR has done extensive work to develop the funding for this opportunity and fully expects to have secured a commitment for funding within the next 60 days. The Conestee Foundation will retain ownership through the restoration and redevelopment process. No problems with site access, ownership, or liability are expected.

4. Long-term Benefits and Sustainability

Long-Term Benefits

As presented previously, the Village of Conestee has long been impacted by Lake Conestee serving as the 'dumping ground' for all of the contaminants of an industrial watershed. The stigma of '*Lake Co-Nasty*' has permeated the profile of this community in ways that have suppressed economic development and contributed directly to depressed incomes, extremely low real estate base, and general neglect of the community,. The proposed assessment is the first vital step in reversing that association and beginning to look at Lake Conestee as an attractive resource to the community and to the region. This conversion will stimulate the economy of the community by overcoming the specter of being a 'brownfield' village, and by attracting new development. This initiative will also spark companion redevelopment efforts to secure grants for upgrading of the housing stock, and improving local infrastructure. The proposed project will also directly produce some job opportunities in the community. Moreover, the long term plan of converting the lake into a managed greenspace/wetland, and developing an environmental education center on Taylor Island, will produce several job opportunities within the area, and will directly stimulate local opportunities for eco-tourism and related recreational services.

One of the exciting aspects of the proposed assessment and restoration project is that the project will serve as a model for approaching similar sites elsewhere. Literally hundreds of industrial era millponds similar to Lake Conestee exist throughout the Southeast and the East. In many cases these ponds have contamination issues that must eventually be addressed, and many offer similar potential for restoration as

natural greenspace and managed habitats. Clearly, the approach and lessons learned from this project will be transferable to other communities.

Sustainable Reuse

This project offers an exceptional opportunity to completely recycle a property that previously had been written off by the surrounding community. The transformation to an environmental education center will enable the lake to tell its story as an archaeological record of all of the environmental insults that it has captured over nearly 170 years. The history of siltation, tied to specific infrastructure projects, the history of industrial and municipal contamination, our communities' wastewater and solid waste management programs, and the record of water quality of the Reedy River will provide a wealth of educational subject matter and research projects for students of all ages. Likewise, the natural succession of the riparian forest, and the associated wildlife communities will provide an extraordinary environment for learning.

The restoration of the lake will also stimulate a fresh look at the village of Conestee and some of the properties located there. Because of its location near the center of a thriving metropolitan area, and the attraction to natural greenspace, the real estate community will certainly begin to look at the community in a much more positive light. This will result in a progressive reawakening of the value and attractiveness of the community for commercial, industrial, and residential redevelopment. These opportunities will be further stimulated by the redevelopment grant programs, which will be pursued by the Conestee Foundation, GCRA, and allied agencies.

Another exciting benefit of this program will be the organizing of the local citizenry into an effective community voice. This effort will be critical to assisting in the performance of the proposed community outreach program. Moreover, this organization will for the first time enable local citizens to effectively pursue public investments in their community in terms of infrastructure, grants, and jobs.

Measures of Success

Anticipated Changes in Economic Picture - As the lake is improved, managed, and sustainably used, it will raise the status and the attractiveness of the surrounding community, sparking reinvestment in the mill village. The mill complex currently serves as a warehouse, and is ripe for redevelopment into a new, job-generating use. Other mills in the Greenville area are being redeveloped for light manufacturing or as multi-use centers with apartments, condominiums, offices, restaurants, and/or retail shops. While restoration costs can be high, according to a January 24, 2000 article in *The Greenville News*, many developers are finding them to be a good investment.

With the increasing urbanization of Greenville County and continuous development of new subdivisions, there has been a renewed interest in older homes and older communities. Mill villages fit the pedestrian-friendly model of "new urbanism," a movement in urban planning toward traditional communities that encourage neighborly interaction. Some Greenville-area mill villages have been successful at attracting new residents interested in restoring the older homes. If Lake Conestee is restored into an attractive greenspace, it is certain that the community will become a more desirable place to live, and new residents as well as old will invest in their properties, and new businesses will locate to serve them.

Measures of Economic Recovery - The redevelopment of a community like Conestee is an extended project that will be ongoing for twenty years or more. Unquestionably, as the perception of the community as a dumping ground begins to turn, and reinvestment and redevelopment occurs, the tax base will climb quickly, from one of the most depressed communities in the county, to one more in line with county averages. Likewise, as the perceived quality of life in the community continues to improve, and housing stock is improved, the average income and education levels of the occupants will grow. Further, the village can be expected to experience significant population growth, and new development around its fringes as it is perceived as a favorable place to live and raise a family.

Deliverables - Specific deliverables from this project will include the following:

- Community Involvement Plan
- Sampling and Analysis Workplan
- Report on Assessment Results – Lake Conestee
- Recommendations for Wetlands Management and Restoration of Lake Conestee
- Report on Opportunities for Economic Redevelopment of the Village of Conestee

5. Greenspace

Initiatives to Preserve Lake Conestee: The ultimate objective of the proposed project is to convert Lake Conestee into a public greenspace, as a managed wetland and environmental teaching center. Because of its historical isolation and neglect, and its perceived contamination, this resource provides a truly exceptional opportunity for redevelopment as greenspace. Further, this resource is located within 10 miles of an urban population of over 250,000, a community that is clamoring for greenspace opportunities. Lake Conestee, with its diversity of wetlands, deltaic deposits, pools, sloughs, and islands, offers an incredible array of habitats, extraordinary in such an urban area. To enable the reviewers to appreciate the qualities of this special place, we have provided Figure 5 and Figures 5A-5E to convey the diversity of this environment and the uncommon greenspace opportunity presented in Lake Conestee.

Recognition of these exceptional qualities, is what has stimulated FoRR to establish a special private nonprofit corporation, the Conestee Foundation, solely for the purposes of preserving and restoring this resource. And, as previously conveyed in this report, FoRR has also signed an Agreement to Purchase the property, its contamination issues and uncertainties notwithstanding.

Parallel Greenspace Initiatives: The qualities of this site are further enhanced by the existence of extensive public properties on the east and north sides of the lake. The City of Greenville's minor league baseball stadium, with parking and infrastructure already in place, provides a natural center point for access to much of the lake. The City of Greenville, the City of Mauldin, and the Greenville County Recreation District have all begun initiatives for development of greenway systems. This site, along the Reedy, naturally lends itself to become a major hub for that system

Paralleling the municipal and county efforts, already FoRR has established the Reedy River Land Trust for the express purpose of acquiring select properties along the Reedy and its tributaries for incorporation into the Reedy River Forest Preserve. The benefits of this preserve will be improvement of water quality, attenuation of flooding and stormwater impacts, stabilizing streambanks, providing habitat, and ultimately tying together a continuous network of greenways and greenspace along the streams of Greenville and Laurens Counties, from the Reedy's headwaters in the foothills Blue Ridge mountains, to Lake Greenwood. The land trust has already acquired several properties, some of which have been conveyed to the City and the County Recreation District to be converted into parks. Other properties are being managed by the trust and urban forest management plans are being developed for each parcel. FoRR has also established the Reedy River Paddling Trail and published a paddling guide identifying put-ins and the character of the paddling resource from downtown Greenville 65 miles to Lake Greenwood in Laurens County. Obviously, Lake Conestee would be a natural attraction for paddling and hiking activities within the urban Greenville area.

Potential Wetlands Enhancements: To improve and actively manage the wetlands, the dam would be stabilized and the flow regime regulated to minimize disturbance of contaminated lake sediments. Some water control structures may be constructed in some of the inner embayments and sloughs to effect improved stormwater detention, water quality polishing, sediment removal, and waterfowl habitat enhancement. Extensive streambank stabilization projects, bottomland forest improvement projects, and wildlife enhancement projects will be integrated into the management plan.

The managed wetland will serve as a community resource and help achieve the larger goal of creating a greenway along the entire length of the Reedy River, which runs 73 miles from the foothills of the Blue Ridge mountains through downtown Greenville and south to Lake Greenwood. Already several publicly-owned properties adjoin the lake, including a minor-league baseball stadium, a closed City of Greenville landfill, and land owned by WCRSA.

Environmental Education Center: The Lake Conestee site is also extraordinarily well-suited to the development of an environmental teaching center to serve the Greenville and Laurens County school systems. This concept calls for the construction of an environmental interpretive center on Taylor Island, formerly an actual island within the original lake, peaking at an elevation 22 feet above the lake and having an area of about eight acres. This secluded island, now with a mature Piedmont upland hardwood forest, provides the perfect site for such an interpretive center, which might be accessible only by pedestrian traffic or electric cart. The curriculum and activities for the teaching center would include the contamination history of Lake Conestee and the Reedy River, analysis of sediment cores, wetland habitat management, stormwater

management, water quality sampling, and urban wildlife management. We envision that the teaching center would include an extensive network of walking trails and wetland boardwalks throughout the lake property, and connecting to the regional greenways system. The lake would also be promoted as a local recreational destination for birdwatching and nature observation, wetlands enthusiasts, and for paddlesports.

Authority and Context

The Greenville County Soil & Water Conservation District, as related earlier in this proposal, has the authority to manage and administer the proposed scope of work, and to receive federal funds under the brownfields program. Also as related previously, the Conestee Foundation, in collaboration with Friends of the Reedy River, will ultimately be the nonprofit corporation responsible for owning Lake Conestee and facilitating the restoration and redevelopment of the lake. Acquisition by a nonprofit charitable organization has several obvious benefits to facilitating this project. Among those are the ability to acquire contaminated property as a truly objective, non-responsible party (under CERCLA), to pursue and receive agency and foundation grants, and to attract corporate and individual contributions.

The contractual arrangements for the administration of the proposed project are reflected in the Memorandum of Understanding between the District and FoRR which is provided as Attachment W. The Conestee Foundation is expected to take on full responsibility for the project over the next two months. FoRR will function as an allied organization and co-sponsor of the project.

Community Involvement

Community involvement in the Greenspace program was thoroughly described in Section 2 of this proposal.

Site Identification, Site Assessment Plan, Flow of Ownership, and Reuse Planning

Site identification, assessment, ownership, and reuse planning have been thoroughly addressed in Section 3 of this proposal.

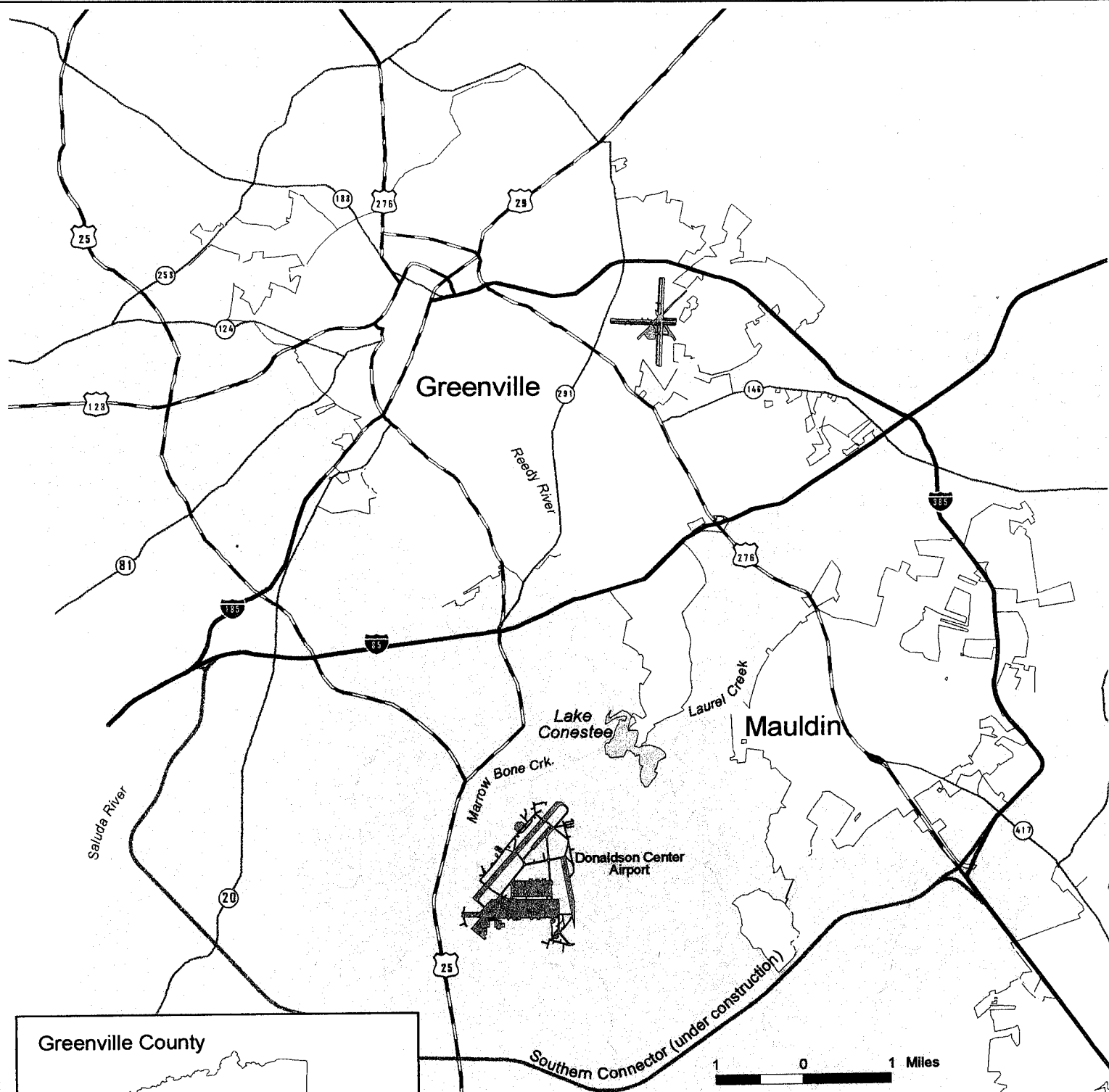
List of Attachments

Maps / Figures

- 1: Location of Lake Conestee
- 2: Lake Conestee Watershed
- 3: Village of Conestee and Adjacent Community Area
- 4A: Lake Conestee - Aerial Photo - 1943
- 4B: Lake Conestee - Aerial Photo - 1994
- 5: Photo Location Reference – Lake Conestee
- 5A: East Bay – Lake Conestee
- 5B: River View Toward Taylor Island – Lake Conestee
- 5C: West Bay Beaver Complex – Lake Conestee
- 5D: West Bay View to Marrow Bone Creek – Lake Conestee
- 5E: Marrow Bone Creek – Lake Conestee

Correspondence from Agencies and Organizations

- A: South Carolina Department of Natural Resources: Land, Water, and Conservation Division – State Office: Authority of Soil & Water Conservation Districts
- B: South Carolina Department of Natural Resources – Deputy Attorney General: Certification of Authority
- C: US Environmental Protection Agency, Region IV: Certification of Project
- D: South Carolina Department of Health and Environmental Control – Division of Water Quality, Bureau of Water
- E: H.J. Brand
- F: Friends of Reedy River
- G: Conestee Foundation
- H: South Carolina Department of Health and Environmental Control – Environmental Quality Control: Certification Letter from Brownfields Program
- I: South Carolina Department of Natural Resources – Land, Water and Conservation Division – Greenville Office
- J: Appalachian Council of Governments
- K: Greenville County Redevelopment Authority
- L: Greenville County Recreation District
- M: Natural Resources Conservation Service, USDA
- N: Foothills Resource Conservation & Development Council
- O: U.S. Fish & Wildlife Service
- P: Greenville County
- Q: City of Greenville
- R: City of Mauldin
- S: Upstate Forever
- T: Sierra Club
- U: Ducks Unlimited
- V: Reedy River Missionary Baptist Church
- W: Memorandum of Understanding between GCSWCD and FoRR
- X: Summary List of Sponsoring and Partnering Organizations



Greenville County

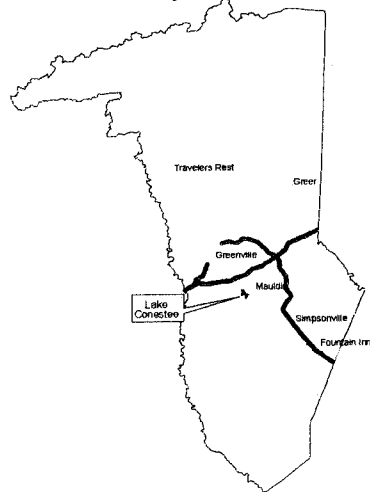


Figure 1
Lake Conestee - General Location

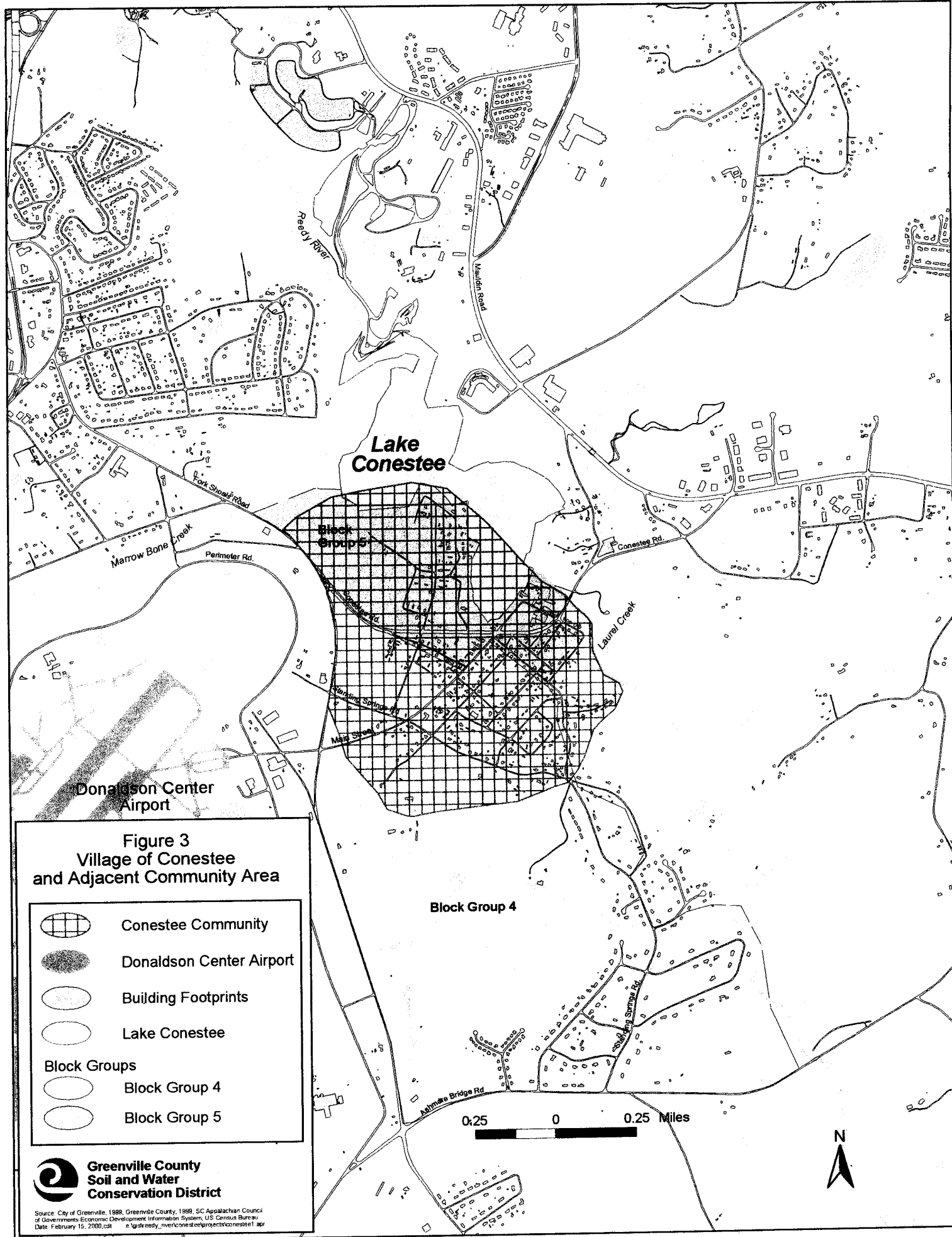
	Interstates		Rivers & Streams
	US Highways		Municipalities
	SC Highways		Airports

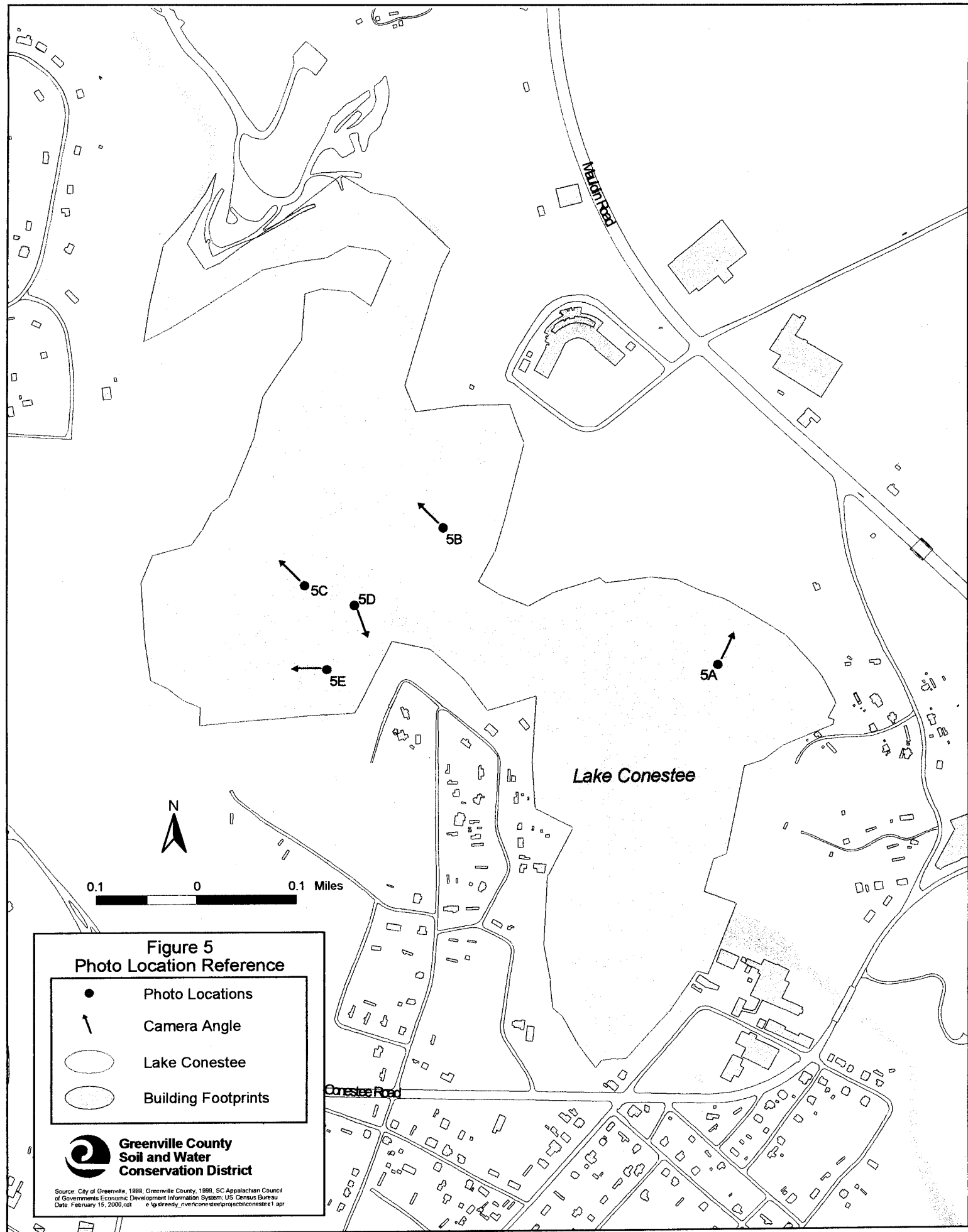


Greenville County
Soil and Water
Conservation District

Source: City of Greenville, 1998; Greenville County, 1998;
SC Aquatic Resource Council of Governments Economic Development
Information System; US Census Bureau.
Date: February 15, 2000. cde







ATTACHMENTS A THROUGH V

Correspondence from Agencies and Organizations

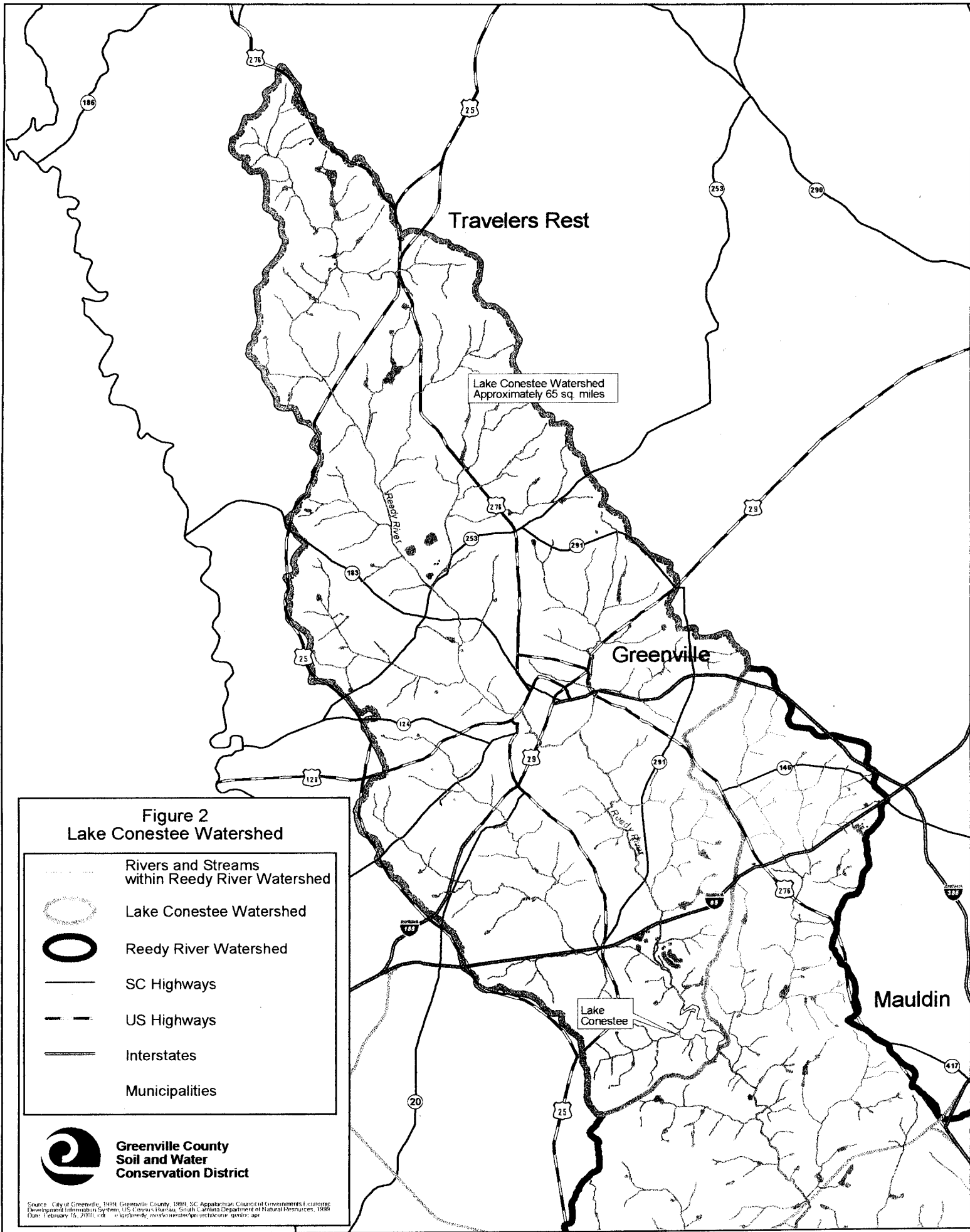









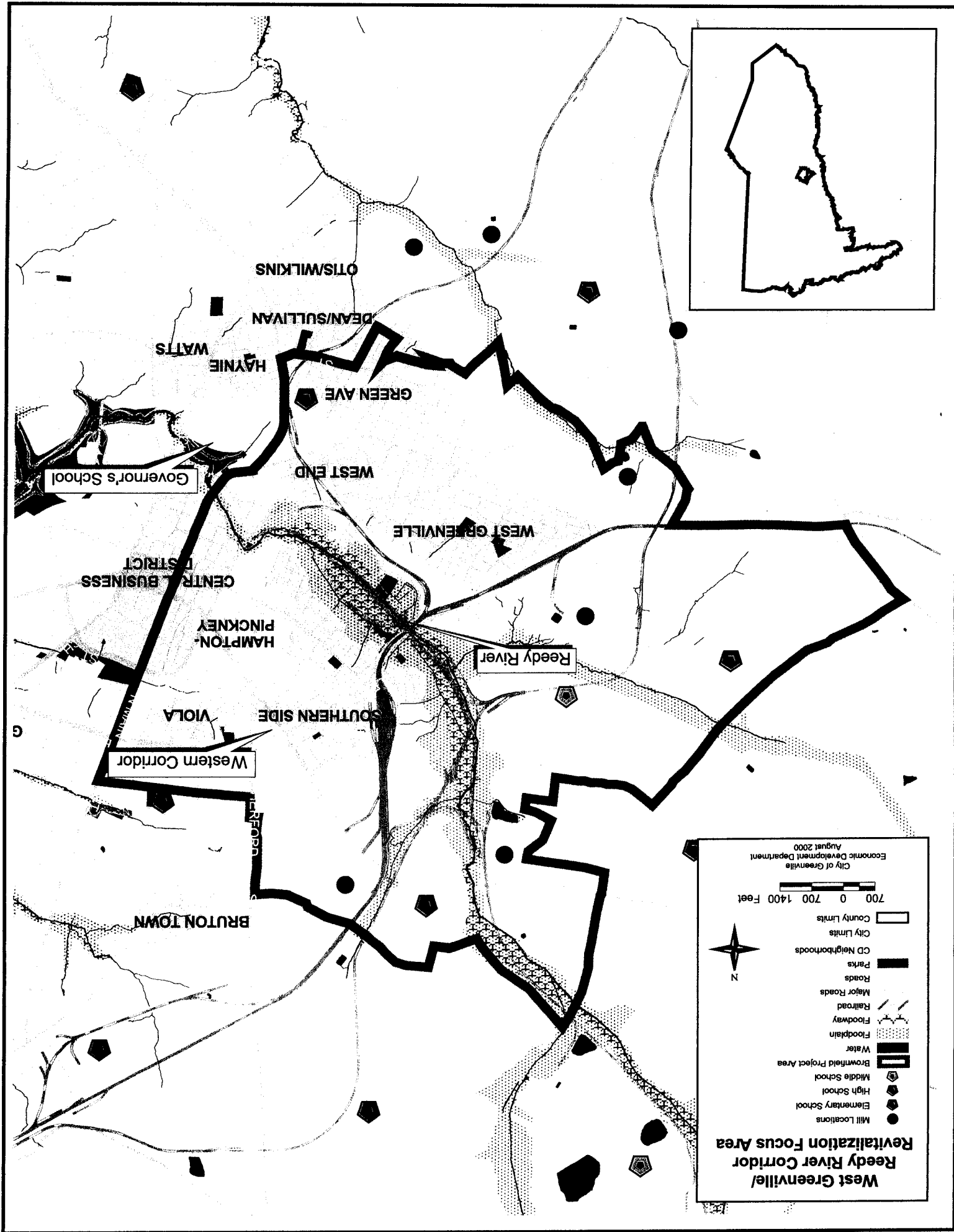
Figure 2
Lake Conestee Watershed

-  Rivers and Streams within Reedy River Watershed
-  Lake Conestee Watershed
-  Reedy River Watershed
-  SC Highways
-  US Highways
-  Interstates
-  Municipalities



Greenville County
Soil and Water
Conservation District

Source: City of Greenville, 1998; Greenville County, 1999; SC Appalachian Council of Governments Economic Development Information System; US Census Bureau, South Carolina Department of Natural Resources, 1999; Date: February 15, 2000; File: c:\gsd\reedy_river\watershed\fig2\stone_greenville.apr

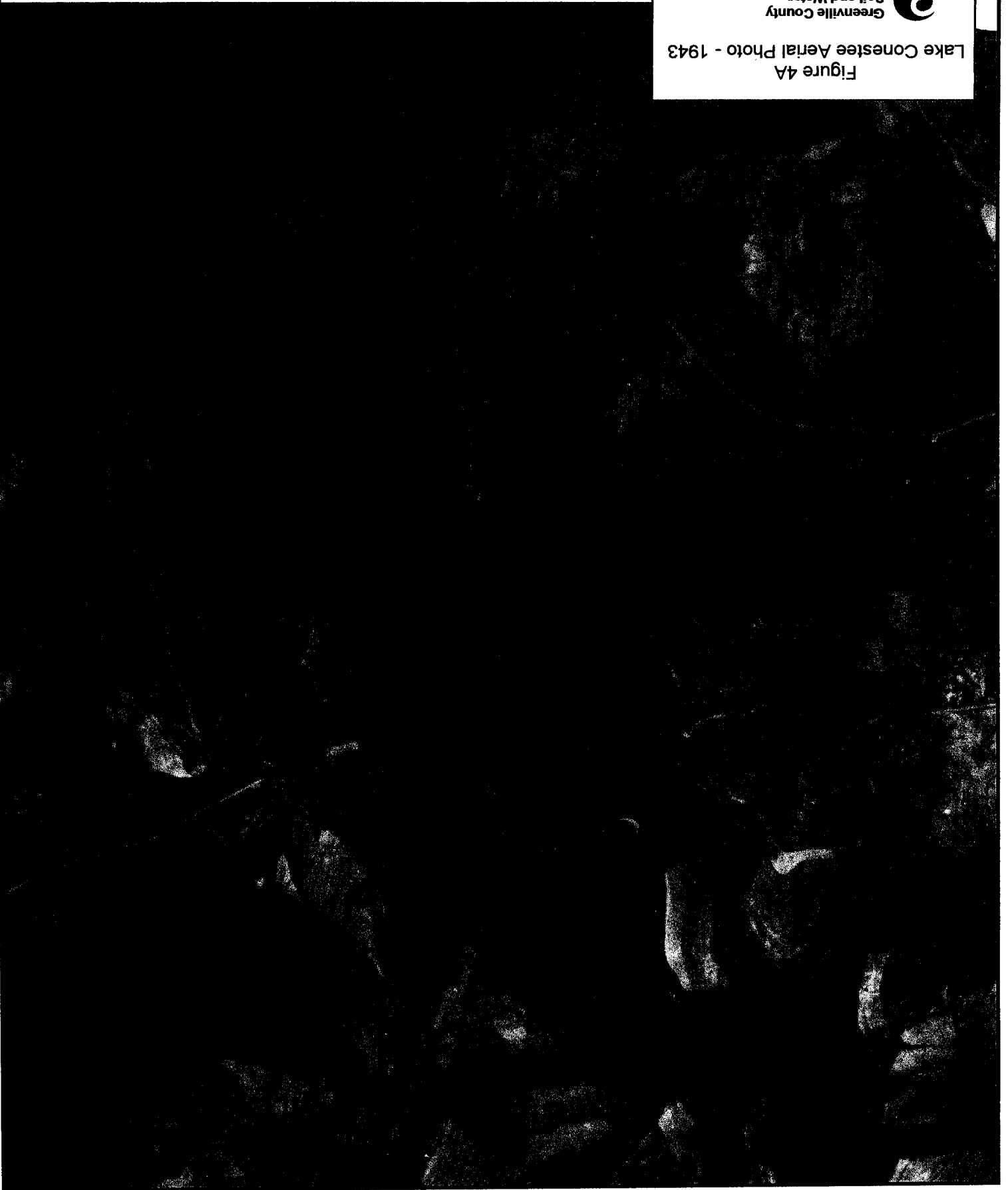


Source: USGS, 1943

Greenville County
Soil and Water
Conservation District



Figure 4A
Lake Conestee Aerial Photo - 1943



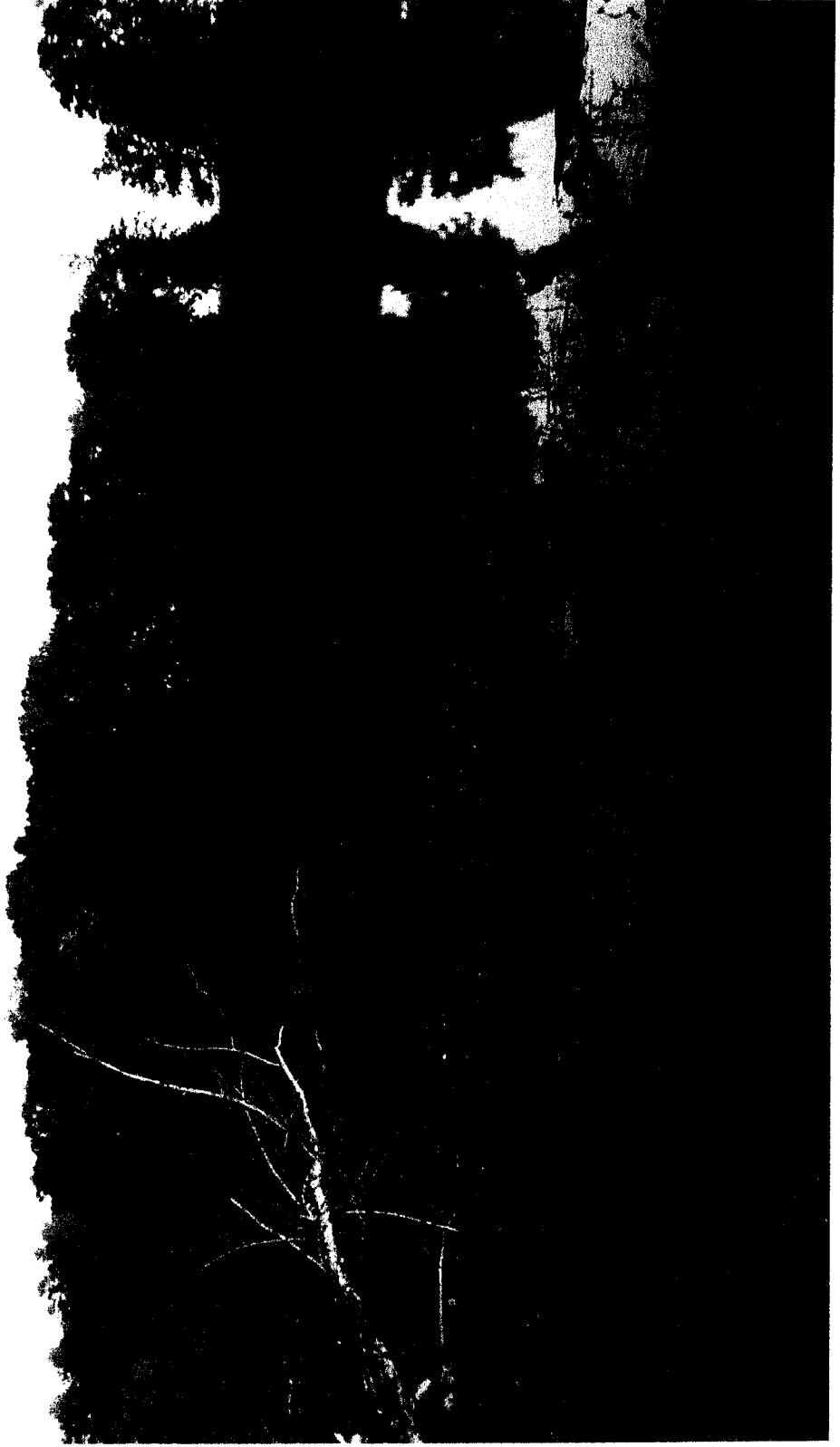


Figure 5A: East Bay - Lake Conestee



Figure 5B: River View Toward Island - Lake Conestee



Figure 5C: West Bay Beaver Complex - Lake Conestee



Figure 5D: West Bay View to Marrow Bone Creek - Lake Conestee



Figure 5E: Marrow Bone Creek - Lake Conestee

South Carolina Department of
Natural Resources

February 14, 2000

ATTACHMENT B



Paul A. Sandifer, Ph.D.
Director

Office of Chief Counsel

Buford S. Mabry, Jr.

Paul S. League

Ester F. Haymond

James A. Quinn*

Charleston Office

VIA FACSIMILE

Environmental Protection Agency
Solid Waste & Emergency Response Division
Washington, D.C. 20460

To whom it may concern:

This is to certify that the Greenville County, South Carolina Soil & Water Conservation District is a political subdivision of the State of South Carolina (§ 48-9-1270) which has the power to cooperate and enter into agreements with the United States government (48-9-1270(4)); to conduct surveys, investigations and research relating to . . . sediment damages and the preventive measures and works of improvement. . . . (48-9-1270(1)).

Please contact me if I can provide further information.

Sincerely,

A handwritten signature in cursive script that reads "Ester F. Haymond".

Ester F. Haymond
Assistant Attorney General

EFH/mwr

Post Office Box 167 • Columbia, S.C. 29202 • 803-734-4006 • Fax 803-734-6310
• Post Office Box 12559 • Charleston, S.C. 29422 • 803-762-5061 • Fax 803-762-5412

EQUAL OPPORTUNITY AGENCY

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South Carolina Department of Natural Resources



Paul A. Sandifer, Ph.D.
Director

Alfred H. Vang
Deputy Director for
**Land, Water &
Conservation Division**

February 10, 2000

Mr. Dave Hargett
Friends of Reedy River
Suite 301, 1 Augusta St.
Greenville, SC 29601

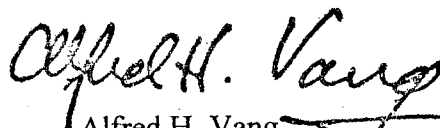
Dear Mr. Hargett:

This letter is sent in reference to the Friends of the Reedy and the Conestee Foundation's submittal of a Brownfields Assessment Demonstration Pilot Grant application for Lake Conestee. The purpose of the grant will be to conduct an assessment of Lake Conestee to examine contamination concerns, to identify potential corrective action priorities and to work with the community to aid in residents understanding of the process and the issues.

The Greenville Soil and Water Conservation District will serve as the project sponsor and a Memorandum of Understanding (MOU) between the District and the Friends of the Reedy has been developed. The Greenville Soil and Water Conservation District is an arm of the S.C. Department of Natural Resources (SCDNR) and a subdivision of State government. As such, this entity is eligible to receive funds under CERCLA Section 104(d), has the authority to enter into an agreement with USEPA and has the authority to carry out the work included in the proposal (as specified in the MOU).

We are very excited to be a part of this project as it clearly supports the SCDNR's mission and objectives. We anticipate many benefits to the natural resources of this area that will result from converting Lake Conestee into a managed wetland and environmental teaching center. If you have any questions, please do not hesitate to contact me.

Sincerely,


Alfred H. Vang
Deputy Director

AHV:kan

copy: Von Snelgrove, Section Chief, Conservation Districts
O.R. Cothran, Chairman, Greenville Conservation District



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

ATTACHMENT C

February 4, 2000

4WD-NSMB

Nancy Fitzer
The Pinnacle Consulting Group
Suite 301, 1 Augusta Street
Greenville, South Carolina 29601

SUBJ: Lake Conestee, Greenville County, SC

Dear Ms. Fitzer:

I am writing in response to your letter dated January 11, 2000 concerning the property referenced above. My response is based upon the facts presently known to the U.S. Environmental Protection Agency ("EPA") and is provided solely for informational purposes.

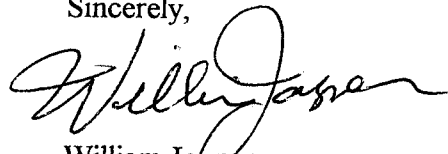
The federal Superfund Program, established to cleanup hazardous waste sites, is administered by EPA in cooperation with individual states and local and tribal governments. Sites are discovered by citizens, businesses, and local, state or federal agencies. When a potential hazardous waste site is reported, EPA records the available information in its database, the Comprehensive Environmental Response, Compensation, and Liability Information System ("CERCLIS"). The fact that a site is listed in CERCLIS, however, does not mean that an EPA response action will occur at the site or that ownership or operation of the site is restricted or may be associated with liability. The fact that a property is not listed in CERCLIS means that EPA is not currently planning to take any action under the federal Superfund program to evaluate the site for inclusion on the National Priorities List (NPL) or to conduct removal or remediation activities.

The above-referenced property was not identified in a search of the active and archived records in the CERCLIS database. Please note that its absence from CERCLIS does not represent a finding that there are no environmental conditions at this property that require action or that are being addressed under another federal or state program. The absence of the property from CERCLIS means that, at this time, EPA is not aware of any information indicating that there has been a release or threat of release of hazardous substances at or from the facility that needs to be assessed by the federal Superfund program and that no such assessment has been performed by EPA in the past. Additionally, I encourage both groups to continue working with Gail Rawls Jeter at the South Carolina Department Health and Environmental Control (DHEC) at (803) 864-4069 to address any future environmental issues concerning this project.

If you would like more comprehensive information on current or historical CERCLIS data or to request an additional search, please contact the National Technical Information Service ("NTIS"), a publishing clearinghouse for government information. The address is: U.S. Department of Commerce, 5285 Port Royal Road, Springfield, VA 22161 telephone: (703) 487-4650; fax: (703) 321-8547. CERCIS information is also available on the Internet at <http://www.epa.gov/superfund/index.html#Products>.

Should you have any further questions about Superfund, please feel free to contact me at (404) 562-8795. The address is: U.S. Environmental Protection Agency, Atlanta Federal Center, 61 Forsyth Street S.W., Atlanta Georgia 30303-8960.

Sincerely,

A handwritten signature in black ink, appearing to read "William Joyner", written in a cursive style.

William Joyner
Remedial Project Manager
North Site Management Branch

cc: Gail Rawls Jeter, SC DHEC
cc: Michael Norman, U.S. EPA
cc: Barbra Dick, U.S. EPA



ATTACHMENT D

2600 Bull Street
Columbia, SC 29201-1708

COMMISSIONER:
Douglas E. Bryant

2/15/00

BOARD:
Bradford W. Wyche
Chairman

William M. Hull, Jr., MD
Vice Chairman

Mark B. Kent
Secretary

Howard L. Brilliant, MD

Brian K. Smith

Rodney L. Grandy

Larry R. Chewning, Jr., DMD

Dr. Dave Hargett
Friends of the Reedy River
P.O. Box 9351
Greenville, SC 29605

Dear Dr. Hargett,

The S.C. Department of Health and Environmental Control-Water Quality Division supports The Friends of the Reedy River, The Conestee Foundation, and The Greenville Soil and Water Conservation District in their effort to implement the Lake Conestee Brownfields Assessment Pilot Demonstration Project. We recognize that there is a possibility of some contamination of lake sediments there due to decades of upstream urban and industrial activity and that a thorough characterization of sediments, water, and surrounding soils is necessary to fully assess human and environmental risks associated with the property and its potential future uses. The data obtained in the assessment will also be useful in providing information on potential water quality impacts in the Reedy River downstream of Lake Conestee. We are in support of you and your cooperator's ultimate goals for the property: conservation, wetlands restoration, and environmental education and understand that a comprehensive environmental assessment is a necessary first step in achieving those goals. We look forward to providing continued technical assistance on this project.

Sincerely,

Sally Knowles
Director-Division of Water Quality
Bureau of Water

cc. Gail Jeter-DHEC-Land and Waste Management

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL



H. J. BRAND
INCORPORATED

February 14, 2000

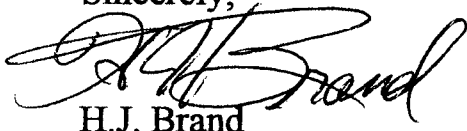
David L. Hargett, PhD.
Executive Director
Friends of the Reedy River
P.O. Box 9351
Greenville, S.C. 29604

Dear Mr. Hargett:

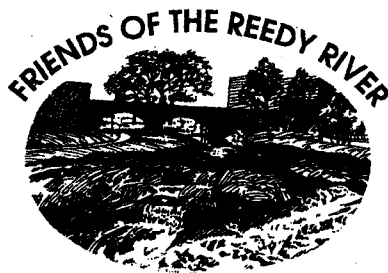
As the current owner of the Lake Conestee property as well as of the Conestee mill complex, I wholeheartedly support your proposal to conduct an assessment of the lake and your initiative to restore the lake to an attractive resource and environmental education facility for the community. That is why I have signed a contract to sell the lake to Friends of the Reedy River, contingent upon the organization securing funding.

I have owned a business in the Conestee community for 27 years, and have witnessed firsthand the deterioration of this neighborhood. It has become a village of old mobile homes, and unkempt houses. I believe that the restoration of Lake Conestee will benefit the local business community as well as the citizens by improving the community's image, acting as a catalyst for reinvestment in the important part of Greenville's history. What the Lord has given is beautiful, the hills and the water, it is now our turn as his partners to help beautify what He has given us.

Sincerely,



H.J. Brand



Post Office Box 9351
Greenville, South Carolina 29604
(864) 255-5009

16 February 2000

Mr. Jason L. Gillespie, Program Manager
Greenville County Soil & Water Conservation District
301 University Ridge, Suite 4500
Greenville, South Carolina 29601

Subject: Brownfields Assessment Demonstration Pilot
Lake Conestee Restoration

Directors

Barbara Allen
Camille Buck
Judy Cromwell
Paul Ellis
John Few
Gailly Gallivan
Don Ham
Dave Hargett
Anna Kate Hipp
Frank Holleman
Tommy Keith
Ben Keys
Don Koonce
Dana Leavitt
Nancy Maddrey
Pat Mullen
Dottie Schipper
Polly Shoemaker
Tom Tiller
Stan Turner
Eleanor Welling

Dear Jason:

On behalf of Friends of the Reedy River, I would like to express our utmost enthusiasm and support for the proposal to restore Lake Conestee. We can imagine no more important legacy to leave future generations of Upstate residents than a safe, actively-managed ecological, recreational, and educational resource at Lake Conestee. That is why we have signed an agreement to purchase the lake property, entered into this partnership with the GCSWCD, and established the Conestee Foundation.

Currently, Lake Conestee represents a threat to downstream communities as well as a liability for the residents living on its shores. The proposed assessment, stabilization, and restoration of the lake will undeniably improve the community's prospects for economic redevelopment as well as benefit the entire Reedy watershed.

Most compelling about this project is the opportunity to benefit the community of Conestee by progressively reversing the image of Lake Conestee from that of 'Lake Co-Nasty' to one of a resource and a natural attraction benefiting the community around it.

Thank you for your cooperation and initiative in this once-in-a-lifetime conservation project, and for your support in our efforts to restore the Reedy River.

Sincerely,

Friends of Reedy River, Inc.

David L. Hargett, PhD.
Executive Director



The Conestee Foundation, Inc.

*1 Marshall Court
Greenville, South Carolina 29605*

ATTACHMENT G

February 15, 2000

David L. Hargett, Ph.D.
Executive Director
Friends of the Reedy River
P.O. Box 9351
Greenville, SC 29604

Dear David:

Thank you for submitting the applications for the Lake Conestee property as a Brownsfield Assessment Demonstration Pilot. As the acting president of the Conestee Foundation, I am excited about the opportunities this property offers our community and the environment. Appropriately, and as articulated by various agency representatives that have visited the Conestee site, the first step should be to analyze the sediments to determine what activities can be safely performed and if sediment disturbance would be harmful.

It is exhilarating to envision the community and environmental benefits which could be accomplished on a property so closely and uniquely positioned to the City of Greenville. Artificial wetlands, such as those created in Crowley, LA, Union, MS., Collins, MS. and Cannon Beach, OR. double as nature sanctuaries & greenspace parks while purifying urban wastewaters and buffering stormwater runoff. How appropriate an opportunity for this property which is: within the Reedy River Greenway plan, located adjacent to the Memorial Stadium, and directly downstream from the unlined landfill and wastewater treatment facility. Being directly downstream from Greenville and its sediments, Lake Conestee is a unique combination of Greenville's past as well as an excellent teaching laboratory to demonstrate what we can do today for the environment and community.

With the high amount of growth upstream in Greenville and downstream in Simpsonville and Lake Greenwood, this central point is an excellent natural area to purify and renew the water quality and absorb some of the rapid storm runoff. If the sediments are conducive to manipulation, I envision low level ponds where filtering vegetation can be grown and harvested and water levels can be raised for migratory birds.

Further, one of the most important and exciting aspects of the proposed project is what it can do to help with the economic redevelopment of the Village of Conestee. This area has been depressed so long, and ostensibly because it has been at the receiving end of Greenville's discharges.

Our rapidly growing community is ready to embrace such a project which revitalizes the Reedy River resource while being a good steward to our precious greenspace. Thank you for sharing your expertise and submitting this project as a Brownsfield Assessment Demonstration Pilot. We look forward to continuing our close working relationship as these projects take form.

Sincerely,



Dana H. Leavitt, Acting President



2600 Bull Street
Columbia, SC 29201-1708

February 10, 2000

Mr. Jason L. Gillespie
Programs Administrator
Greenville County Soil and Water Conservation District
301 University Ridge, Suite 4500
Greenville, South Carolina 29601

Dear Mr. Gillespie:

On behalf of the South Carolina Department of Health and Environmental Control (DHEC), I am pleased to offer a Letter of Support to the Greenville County Soil and Water Conservation District which is submitting an application for the Brownfields Assessment Demonstration Pilot grant. This funding will be used to convert Lake Conestee into a managed wetland and environmental teaching center.

My staff have been working with Friends of the Reedy River to ensure that Lake Conestee is both preserved and revitalized. Lake Conestee is an historic mill-pond located on the Reedy River, approximately seven miles south of downtown Greenville, South Carolina. Very little data exists with regard to the level of contamination of the lake sediments. However, fish kills have been reported in the lake since the late 1920's due primarily to pollutant and sewage sludge discharged. There have been various historical industrial companies, including textile mills, that have contributed to contamination of the watershed. We believe the contaminated sediments retained in Lake Conestee are currently the largest uncontrolled and unmanaged body of potential contaminants threatening the Reedy River.

Upon receiving the Brownfields Initiative grant, the Commission will perform an environmental assessment in order to accomplish their goal of stabilizing contaminated sediments. Then, they plan to convert the sediment-filled lake into an actively managed wetlands complex. The final step will be to develop an environmental education center to service Greenville and Laurens County School Districts' students.

Our agency is committed to assisting the Greenville County Soil and Water Conservation District and the Friends of the Reedy River to revitalize Lake Conestee. You can rely on our staff to provide technical guidance, community outreach assistance, and additional support throughout the revitalization efforts at this site. After all, the awarding of this pilot to you will not only aid in its revitalization, but also will similarly aid the State of South Carolina.

Page 2

Please feel free to contact me if we can be of additional assistance to you and your staff on what I believe can be a project to achieve mutual environmental protection, economic development, and liveable community goals. We look forward to working with you toward a positive outcome for all of us.

Very truly yours,

A handwritten signature in black ink, appearing to read "R. Lewis Shaw", with a stylized flourish at the end.

R. Lewis Shaw, P.E.
Deputy Commissioner
Environmental Quality Control

c: Douglas E. Bryant, MPH, Commissioner
Doug Johns, Director, Appalachia II EQC District
Gail Rawls Jeter, Environmental Health Manager, BL&WM
David L. Hargett, Executive Director, FORR

South Carolina Department of Natural Resources

ATTACHMENT I



Paul A. Sandifer, Ph.D.
Director

Alfred H. Vang
Deputy Director for
**Water Resources,
Land Resources &
Conservation Districts**
and
Geological Survey

February 14, 2000

O. R. Cothran, Jr.
Greenville County Soil & Water Conservation District
301 University Ridge, Suite 4500
Greenville, SC 29601

Dear Mr. Cothran:

Upon review of the Memorandum of Understanding between the Friends of Reedy River, Inc. and the Greenville County Soil & Water Conservation District there appears to be a great opportunity to address one of the major environmental problems in Greenville County. The Lake Conestee Restoration Project fits the mission of the South Carolina Department of Natural Resources. As the advocate for and steward of the state's natural resources, the Department develops and implements policies and programs for the conservation, management, utilization and protection of the state's natural resources based upon scientifically sound resource management, assessment and monitoring, applied research, technology transfer, comprehensive planning, public education, technical assistance and constituent involvement. The Department of Natural Resources is proactive in protecting the state's natural resources for use and enjoyment by future generations of South Carolinians.

The Department's commitment to providing assistance to the projects of soil and water conservation districts certainly extends to such an outstanding effort as the Lake Conestee restoration. We will commit whatever resources we have available including administrative, technical, and educational programs to ensure the success of the project.

This is a great opportunity to establish Lake Conestee as an environmental education center to demonstrate how a community can identify environmental problems and deal with them in a productive manner. There is great potential for a rebirth of the area into an asset for the Conestee Community as well as Greenville County as a whole.

My staff and I look forward to providing assistance in this project.

Sincerely,

A handwritten signature in cursive script, appearing to read "Leslie Morgan", is written over a horizontal line.

Leslie Morgan
Regional Coordinator of Field Services

Cc: Dave Hargett
Jason Gillespie
Von Snelgrove



COUNCIL OF GOVERNMENTS

PLANNING DIVISION

30 Century Circle • P.O. Drawer 6668 • Greenville, South Carolina 29606 • (864) 242-9733

February 14, 2000

Mr. Dave Hargett, Executive Director
Friends of the Reedy
PO Box 9351
Greenville, SC 29604

Dear Mr. Hargett,

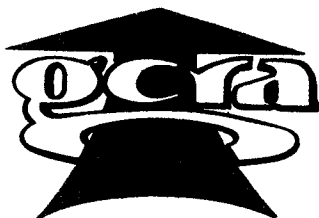
I would like to express my support of the application submitted by the Friends of the Reedy River to designate Lake Conestee as a Brownfields Assessment Demonstration Project. Rapid growth of this region is consuming open space and increasing the pressures on our natural resources at an alarming rate. As development in the region continues and development pressures mount, there is an increasing need for promoting restoration and conservation of natural and cultural resources.

Lake Conestee is part of one of the most rapidly urbanizing watersheds in South Carolina. The pressures of development have already caused several negative impacts on the waters of the area. Restoring the lake to a functioning wetlands system and community greenspace would help achieve two goals this region is beginning to embrace, improving water quality protection and preserving more open space. As the Environmental Planner for the Appalachian Council of Governments, I assist with regional projects to promote conservation and resource protection. This proposal would be an excellent example of the type of effort that we promote and I would be willing to provide any assistance I can.

I hope that for the benefit of Lake Conestee and the Reedy River Watershed that this proposal will be looked upon favorably. Restoration and protection of this valuable resource would be a tremendous asset to the region. Again, if I can be of any assistance to you, please let me know.

Respectfully,

Chip Bentley



greenville county redevelopment authority

"A Sense of Community Pride"

February 14, 2000

David L. Hargett, PhD.
Executive Director
Friends of the Reedy River
P.O. Box 9351
Greenville, SC 29604

Dear Dr. Hargett:

The mission of the Greenville County Redevelopment Authority is to improve the quality of life for low and moderate income citizens of Greenville County through improved affordable housing and revitalization of the physical, social and economic infrastructure necessary to the well-being of communities. Over the past 25 years we have focused our efforts on almost three dozen communities, many of which were mill villages.

While GCRA has not worked in the Conestee mill community, we have a stake in seeing improvement there. We believe that your proposed restoration of Lake Conestee would be a boon to the surrounding community, spurring redevelopment of what is currently a declining area with a dilapidated housing stock. We therefore fully endorse your application to the US EPA to be designated as a Brownfields Assessment Demonstration Pilot.

The GCRA can offer technical resources in the areas of research and community involvement, and will be happy to designate a representative to sit on a project task force or advisory council. With the restoration of Lake Conestee, GCRA may be interested in considering this community in the future for affordable homeownership opportunities!

Sincerely,


Gwen W. Kennedy
Executive Director

cc: W. E. McCullough
Chairman



ATTACHMENT L

February 14, 2000

*Ms. Nancy Fitzer
Friends of the Reedy River
P.O. Box 9351
Greenville, SC 29604*

Dear Ms. Fitzer:

I was very glad to here that Friends of the Reedy River is in the process of acquiring Lake Conestee. Plans calling for restoration of the lake and the potential for it as an educational resource are exciting. I truly feel that when this is accomplished, this area which has been in decline for many years, will immediately begin to revive.

This is a beautiful area that is important both historically and environmentally. The Greenville County Recreation District supports these efforts and will assist in any way feasible. We encourage the EPA to fund the initial study to determine what steps are necessary to allow this property to be enjoyed by everyone.

Sincerely,

*Charles L. Hall
Executive Director*

February 10, 2000

ATTACHMENT M

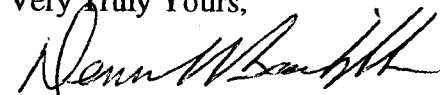
Mr. Jason L. Gillespie
Programs Administrator
Greenville Co. Soil & Water Conservation District
301 University Ridge, Suite 4500
Greenville, SC 29601

Dear Jason;

On behalf of the USDA, Natural Resources Conservation Service (NRCS) in Greenville County, I am pleased to offer a letter of support to the Greenville County Soil & Water Conservation District which is submitting an application for the Brownfields Assessment Demonstration Pilot. My staff and I stand ready to provide technical assistance as needed to help people conserve, improve, and sustain natural resources.

As District Conservationist in Greenville County I am convinced that this pilot will be a major step in healing a major wound in the heart of Greenville County. I look forward to working with you, The Conestee Foundation, and The Friends of the Reedy River in achieving a positive outcome for all.

Very Truly Yours,



Dennis Bauknight
District Conservationist
USDA-NRCS

Cc: Dave Demarest, Foothills RC&D Coordinator
Dave Hargett, Executive Director, FORR
Richard Cothran, Chairman, GCSWCD

Foothills Resource Conservation & Development Council, Inc.

301 University Ridge, Suite 4900

Greenville, SC 29601

(864) 467-2775, ext. 102 fax (864) 467-2782

ATTACHMENT N

Wes Cooler, Chairman

Robert Gardner, Vice-Chairman

Dr. David Hargett, Secretary-
Treasurer

February 14, 2000

Dr. David L. Hargett, Executive Director
Friends of The Reedy River
Post Office Box 9351
Greenville, S.C. 29604

Dear Dr. Hargett:


The Foothills RC&D Council, Inc., at a recent board meeting, unanimously voted to support the designation of Lake Conestee as a Brownfields Assessment Demonstration Project. The Foothills RC&D Council is a grassroots non-profit organization comprised of 15 board members that serve the five most northwest counties in South Carolina. Our board is comprised of a diverse group of individuals with one member from each county being appointed directly by county council. We have a staff of three professionals (resource conservationist, engineer, and soil scientist) that is supplied by the USDA Natural Resources Conservation Service that is available to assist you on this project.

We are excited about this proposal because of the value it will bring to this community. The first step in the process is to convert this neglected lake, filled with contaminated sediments, into an actively managed wetlands complex and environmental teaching center. What is now an ecological treat to downstream communities can become an educational resource and community greenspace for the region. Ultimately this project will spur reinvestment in the Conestee community, which has been in decline for several decades.

This project is clearly within the scope of our organization the mission: *"Local people working together to conserve, improve, and sustain our natural resources"*.

We look forward to working with you in making the restoration of Lake Conestee a reality.

Sincerely,


Wes Cooler
Chairman



County of Greenville

"... At Your Service"

John Hansley
Acting County Administrator
Phone: (864) 467-7105

February 15, 2000

David L. Hargett, Ph.D.
Executive Director
Friends of the Reedy River
P. O. Box 9351
Greenville, SC 29604

Dear Doctor Hargett:

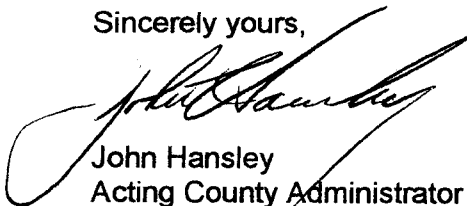
This letter serves to endorse the proposal and application to the U.S. Environmental Protection Agency to designate Lake Conestee as a Brownfields Assessment Demonstration Pilot. It is my understanding that EPA funds help states, local communities, and other organizations interested in local economic redevelopment to assess, safely clean up, and promote the sustainable reuse of brownfields.

This project presents an opportunity to the residents of Conestee and surrounding areas to get involved in the revitalization of the community. It may also have a long term benefit by transforming Lake Conestee into an educational resource and community greenspace for the region. Finally, the revitalization of the area may attract business investments, which will financially benefit the Conestee community.

It is my understanding that, by endorsing this project, the County will not be requested to fund it at a later time. However, by including the Greenville County Soil & Water Conservation District in this partnership, the County can provide the necessary expertise during this process.

Thank you for this opportunity to be *"... At Your Service."*

Sincerely yours,



John Hansley
Acting County Administrator



City of Greenville

Serving...Protecting...Caring

206 South Main Street ♦ Post Office Box 2207 ♦ Greenville, South Carolina 29602

February 15, 2000

Mr. Dave Hargett, Executive Director
Friends of the Reedy River
PO Box 9351
Greenville, SC 29604

Dear Dave:

Please accept this letter as an indication of support for the EPA Brownfields Assessment Demonstration Pilot grant application for the Lake Conestee project. As you know, the City of Greenville is involved in many projects involving revitalization within the Reedy River Corridor. The City supports any efforts directed towards the restoration of one of the areas most important natural resources.

With Lake Conestee being located adjacent to the City of Greenville's incorporated limits, the environmental cleanup of the lake and the creation of an environmental education center provides exciting economic and recreational opportunities for nearby city residents, as well as the community at large.

Sincerely,

Ronald W. McKinney
Interim City Manager



February 9, 2000

David Harget, PhD.
Executive Director
Friends of the Reedy
P.O. Box 9351
Greenville, SC 29604

Dear Dr. Harget:

I received your letter of February 8, 2000 soliciting support of the EPA designation to select Conestee as a Brownfield Assessment demonstration project. On behalf of the City of Mauldin, we would like to express our wholehearted support of the project. Lake Conestee, at the current time, represents a liability, but more importantly, is a potential asset to Greenville County. We strongly endorse this project.

The proximity of Lake Conestee to the city will be of enormous benefit potentially to our citizens in the form of an expansion of recreation and environmental education.

Potentially, Lake Conestee would be included in the scope of the city's Greenway system, making Lake Conestee a destination from the City of Mauldin for a unique ecological experience.

Sincerely,

A handwritten signature in black ink, appearing to read 'David Bates', is written over a horizontal line.

David Bates
City Administrator

CC: Mayor and Council
File

A: david54/reedyconestee.doc

Upstate Forever

ATTACHMENT S

February 15, 2000

David L. Hargett, PhD
Executive Director, Friends of the Reedy River
1 Augusta Street, Suite 301
Greenville, SC 29601

Dear Dr. Hargett:

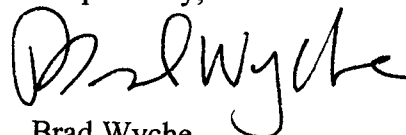
Upstate Forever is a non-profit organization promoting sensible growth and environmental conservation in upstate South Carolina. One of our initiatives is to support programs that encourage restoration of environmentally degraded resources to healthy, viable systems. In addition, we are vitally interested in the redevelopment and restoration of existing neighborhoods.

Upstate Forever, therefore, is pleased to endorse the application by Friends of the Reedy River (FoRR) and The Conestee Foundation for a grant from the USEPA Brownfields Assessment Demonstration Pilot Program. We enthusiastically support their efforts to assess the current ecological conditions of Lake Conestee and to analyze the ways of restoring this neglected and abused resource.

Lake Conestee is located just south of the City of Greenville and is in the middle of one of the most economically depressed communities in the region. Consequently, restoration of the lake will result in both environmental and social benefits for the entire community. An additional advantage to the community will be the availability of a resource that can be used to teach school children about environmental harm and restoration.

Please consider this letter as our official statement of support for the proposal and our willingness to collaborate with FoRR and The Conestee Foundation on their project. If you have any questions or need any additional information, please feel free to contact us.

Respectfully,

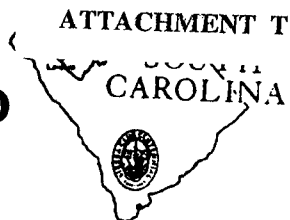


Brad Wyche
Executive Director



The Sierra Club William Bartram Group

South Carolina Chapter
P.O. Box 5923 Greenville, SC 29606-5923



February 15, 2000

Dr. David L. Hargett
Friends of the Reedy River
P.O. Box 9351
Greenville, SC 29605

Dear David:

The Sierra Club is very pleased to learn of the proposed assessment and restoration project for Lake Conestee. As a grassroots environmental organization involved in public education, we are very excited about several aspects of the proposal.

First, the Sierra Club is involved in pollution issues and the effects of pollution on our ecosystem. The first step in assessing the problems presented by Lake Conestee is long overdue. Your proposed assessment will provide vital information on what pollutants exist, in what quantities, and what their impacts to the environment may be.

We believe that Lake Conestee provides an extraordinary environmental archaeological site. The lake contains a history of the pollution and other man-made changes that have occurred in the Reedy River watershed since the founding of Greenville. As a teaching center, Lake Conestee can serve as a living example of how human activity changes natural ecosystems. It can also serve as an example of how we can correct our past errors.

Finally, Lake Conestee has traditionally been a neglected and depressed community. This project would be a tremendous boost to that community.

Please let us know how we can assist.

Sincerely,

Frank Crowder

Chair
William Bartram Group
Sierra Club



... to explore, enjoy and preserve the nation's forests, waters, wildlife and wilderness...



DUCKS
UNLIMITED
INC.

ATTACHMENT U

DUCKS UNLIMITED, INC.
LOWCOUNTRY INITIATIVE

1433 River Road
Yemassee, South Carolina 29945-6600
(803) 846-1613
(803) 846-2399 Fax

February 14, 2000

Mr. Dave Hargett
Executive Director
Friends of the Reedy River
P.O. Box 9351
Greenville, SC 29604

Dear Mr. Hargett

Our mutual friend Dana Leavitt asked that we provide you a letter of endorsement for your effort to have Lake Conestee designated a Brownfields Assessment Demonstration Pilot. As you may be aware, Ducks Unlimited's mission is to provide for the annual life cycle needs of North American Waterfowl by protecting, restoring, enhancing and, in some cases, managing wetlands in key areas of the continent. South Carolina is a major wintering area for Atlantic Coast populations of migratory waterfowl and also provides important production habitat for wood ducks and many other species of wetlands-dependent wildlife.

DU is very active in the protection and enhancement of wetland habits in South Carolina. Though much of our work is centered in the more coastal region, we are very interested in and encourage the conservation of wetland and riparian habitats in the South Carolina Uplands. The overall quality of coastal wetlands is heavily influenced by the quality of the waters that flow into them. In-as-much as the Lake Conestee project, as we understand it, will center on the protection, and possible enhancement of Lake Conestee wetlands, and the utilization of the area as a natural classroom to better inform the public about the many values of wetland conservation, we heartily endorse your efforts. As you know, the first step is to determine the nature of the contaminants tied up in the lake sediments. Should the contaminants survey show that it would be safe to manipulate the lake sediments, we could provide technical assistance on habitat enhancements beneficial to migratory and resident waterfowl and other wetlands wildlife species.

Best of luck with your endeavor.

Very truly Yours,

R.K. Williams
Regional Biologist.

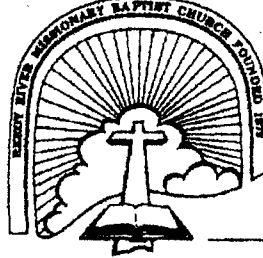
REEDY RIVER MISSIONARY BAPTIST CHURCH

DR. S.C. CURETON, PASTOR

ATTACHMENT V

Christina B. Jackson
SECRETARY / CLERK

Barbara Tolbert
SECRETARY



Algie Dial, Jr.
DEACON MINISTRY CHAIRMAN

Richard Winley
TRUSTEE MINISTRY CHAIRMAN

"Enter To Worship, Depart To Serve."

February 15, 2000

David L. Hargett, Ph. D.
Executive Director
Friends of The Reedy River
Post Office Box 9351
Greenville, SC 29604

Dear Dr. Hargett:

This letter is in response to your fax, February 15, 2000. Our church has been involved in this community for more than a century. The church was organized in September 1879.

I am 100% in support of "Friends of the Reedy River." The church will help provide space for meetings whenever we possible can.

I am asking Ronald Jones, who is a Trustee of the Reedy River Missionary Baptist Church, to serve on the Advisory Council. If I can be of further assistance, please do not hesitate to contact me.

Yours for a better Environment,


Dr. S. C. Cureton

POST OFFICE BOX 676 ♦ MAULDIN, SOUTH CAROLINA 29662
CHURCH: 864 / 277-0364 ♦ FAMILY LIFE CENTER: 277-5106 ♦ RESIDENCE: 676-1906.

ATTACHMENT W

Memorandum of Understanding

MEMORANDUM OF UNDERSTANDING

between

Friends of Reedy River, Inc.

and

Greenville County Soil & Water Conservation District

09 February 2000

This memorandum of understanding documents the terms of agreement between the Friends of the Reedy River (FoRR) and the Greenville County Soil & Water Conservation District (the District) with regard to their collaboration on work referred to as the "Lake Conestee Restoration Project". Specific responsibilities of the parties under this agreement shall be as follows:

1. FoRR (in cooperation with the Conestee Foundation) will develop and pursue a Brownfields Assessment Demonstration Pilot Grant Application for Conestee Lake through the USEPA and SCDHEC. The purpose of this grant will be to conduct an environmental assessment to evaluate potential environmental concerns associated with the lake, to identify potential needs for environmental cleanup activities, and to address community awareness needs with regard to these activities.
2. The District will function as the official government agency sponsor for the grant application.

If the grant is awarded the following responsibilities shall hold:

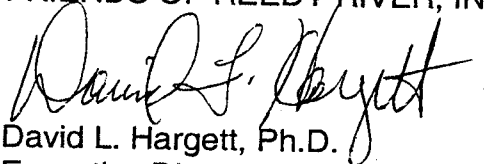
1. The District will function as the agency Grantee.
2. The District will convey the grant, through a "Subgrant" process, in coordination with the granting agencies, to FoRR or its designee (Conestee Foundation), the Subgrantee.
3. The Subgrantee will be obligated to execute all technical requirements of the grant under the terms and conditions specified by the granting agencies.
3. The Grantee, the District, will be allowed an administrative fee for providing the sponsorship and for the administration of the grant. The amount of this fee will be consistent with the guidelines of the granting agencies and appropriate to the level of services provided by the District.
4. The Subgrantee will coordinate with the District to utilize District capabilities in the execution of project tasks wherever appropriate. It is anticipated that District staff will be utilized in the design and execution of public involvement and education tasks, certain public relations activities, and in the identification of priority environmental restoration projects, among other tasks. The District will

- be compensated at appropriate rates for the time and expenses incurred by their staff in the execution of project duties.
5. The District will receive appropriate recognition and publicity for its involvement in the sponsorship of this innovative project. The District will be properly credited in all reports, publications, public information documents, and informational materials developed for the project.
 6. The Subgrantee will agree to hold harmless the District for any errors or omissions that might occur as a result of the Subgrantee's performance of project activities.
 7. The Subgrantee will name the District as an additional insured on general liability insurance policies taken out to cover activities related to the project.
 8. Sponsorship of this grant shall in no way commit the District to any specific commitment of time, staff, funds, or other resources, other than as may be mutually agreed in the course of this project.

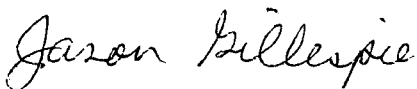
This Memorandum of Understanding may be modified, or may be terminated, only with the mutual consent of the parties, at any time.

This agreement is committed to by the parties as authorized below.

FRIENDS OF REEDY RIVER, INC.


David L. Hargett, Ph.D.
Executive Director

GREENVILLE COUNTY SOIL & WATER CONSERVATION DISTRICT


Jason Gillespie
Program Administrator

ATTACHMENT X

Summary List of Sponsoring and Partnering Organizations

Sponsoring Organizations: The following organizations are the key sponsors for this project. Endorsing letters of support are listed following each organization.

Greenville County Soil and Water Conservation District

Jason Gillespie, Program Administrator, 864.467.2775

The District is an agency of the State of South Carolina, administered under the authority of the Department of Natural Resources. This agency has authority to administer a project of this scope and is eligible to receive federal funds. The District is routinely involved in projects dealing with soil and water conservation.

Friends of the Reedy River, Inc.

David L. Hargett, PhD., Executive Director, 864.467.0811x13

FoRR is non-profit river advocacy group promoting the restoration and protection of the Reedy River and its watershed, of which Lake Conestee is a part. FoRR has sponsored a wide variety of river projects including river clean-ups, development of the Reedy River Paddling Trail, bioengineering stabilization of streambanks, restoration of riparian corridor zones, research on water quality and the biological integrity of the Reedy, educational programs and contests related to the Reedy and aimed at pre-school to post-graduate students, non-point educational programs, and litigation projects aimed at protecting the Reedy. FoRR also manages the *Reedy River Land Trust*. An integral component of FoRR, the Reedy River Land Trust functions to coordinate, acquire and manage riparian lands along the Reedy River and its tributaries. The aim of this program is to restore and preserve riparian areas to form the *Reedy River Forest Preserve*. (Attachment F).

Conestee Foundation, Inc.

Mr. Dana Leavitt, Acting President, 864.420.1886

A non-profit foundation established for the express purpose of developing and promoting projects aimed at the restoration and preservation of Lake Conestee, and conversion of the former lake to a managed wetland and environmental education center to serve the Upstate Region of South Carolina. (Attachment G).

Partnering Organizations: Our project team has contacted all state and local agencies and units of government that can add value to the Lake Conestee assessment and restoration process and the economic redevelopment of the Village of Conestee. We have been highly successful in obtaining support and endorsements from essentially every organization that has learned about the proposed project. The following organizations are our proposed partners. All organizations listed are on record as supporting the project and willing to provide support through technical assistance and consultation, assistance with public involvement, or service on an advisory council.

*South Carolina Department of Health and Environmental Control, Environmental Quality Control
Brownfields Program – Division of Site Engineering and Screening*

Gail Rawls Jeter, 803.896.4069

FoRR has worked closely with several divisions of SCDHEC in the development of a management concept for Lake Conestee, and in the development of this proposal. (Attachment H).

*South Carolina Department of Health and Environmental Control
Division of Water Quality*

Sally Knowles, 803.898.4175

The Division of Water Quality has provided a letter stating their concerns for the potential release of contaminated sediments from Lake Conestee, and the impacts of such an event. (Attachment D).

South Carolina Department of Natural Resources

Land, Water, and Conservation Division – Greenville Field Office

Leslie Morgan, Regional Coordinator-Field Services, 864.467.2770

The SCDNR provides oversight and technical support to the Soil & Water Conservation District offices. The local office will have a key role in providing support to the District in this project. (Attachment I).

Appalachian Council of Governments

Chip Bentley, 864.242.9733

The ACOG provides essential support as a multi-county resource management and planning agency, in 208 planning and related technical issues. (Attachment J).

Greenville County Re-Development Authority

Gwen Kennedy, Executive Director, 864.242.9801

The GCRA is the county authority responsible for planning and coordination of community economic development initiatives. (Attachment K).

Greenville County Recreation District

Charles Hall, Executive Director, 864.288.6470

The GCRD is the county authority responsible for development and management of county recreational facilities. (Attachment L).

Natural Resources Conservation District (NRCS-USDA)

Dennis Bauknight, District Conservationist, 864.467.2775

NRCS is responsible for providing technical support and consultation in federally sanctioned soil and water conservation programs. (Attachment M).

Foothills Resource Conservation and Development District

Dave Demarest, RC&D Coordinator, 864.467.2775

The RC&D is a multi-county organization staffed to provide technical support on soil and water conservation projects on a regional basis. (Attachment N).

U.S. Fish and Wildlife Service (USF&WS-USDOJ)

Roger Banks/Joe Cockrell, 843.727.4707

The USF&WS is responsible for fish/game management programs under federal oversight. (Attachment O).

Greenville County

John Hansley, Acting County Administrator, 864.467.7105

Greenville County has authority over infrastructure, stormwater, and related public facilities in non-incorporated of the County, including the project site. (Attachment P).

City of Greenville

Ron McKinney, Acting City Manager, 864.467.5700

Responsible for related infrastructure management, stormwater, and recreational facilities within its jurisdiction. (Attachment Q).

City of Mauldin

David Bates, City Manager, 864.288.4910

Responsible for related infrastructure management, stormwater, and recreational facilities within its jurisdiction. (Attachment R).

Upstate Forever

Brad Wyche, Executive Director, 864.250.0500

A non-profit corporation that advocates for sensible growth and responsible land use planning. Aims to protect streams, reduce sprawl, and improve transportation in the seven-county Upstate Region of South Carolina. (Attachment S).

Sierra Club, William Bartram Group

Frank Crowder, Chair, 864.228.0108

A non-profit environmental advocate involved in environmental education programs in the region. (Attachment T).

Ducks Unlimited

Kenny Williams, Regional Biologist, 843.846.1613

A non-profit organization committed to supporting the project through providing technical assistance and consultation on waterfowl habitat management. (Attachment U).

Reedy River Missionary Baptist Church

Rev. S.C. Cureton, Pastor, 864. 277.0364

A predominantly minority church located in the Conestee community, committed to participation in the proposed project. (Attachment V).

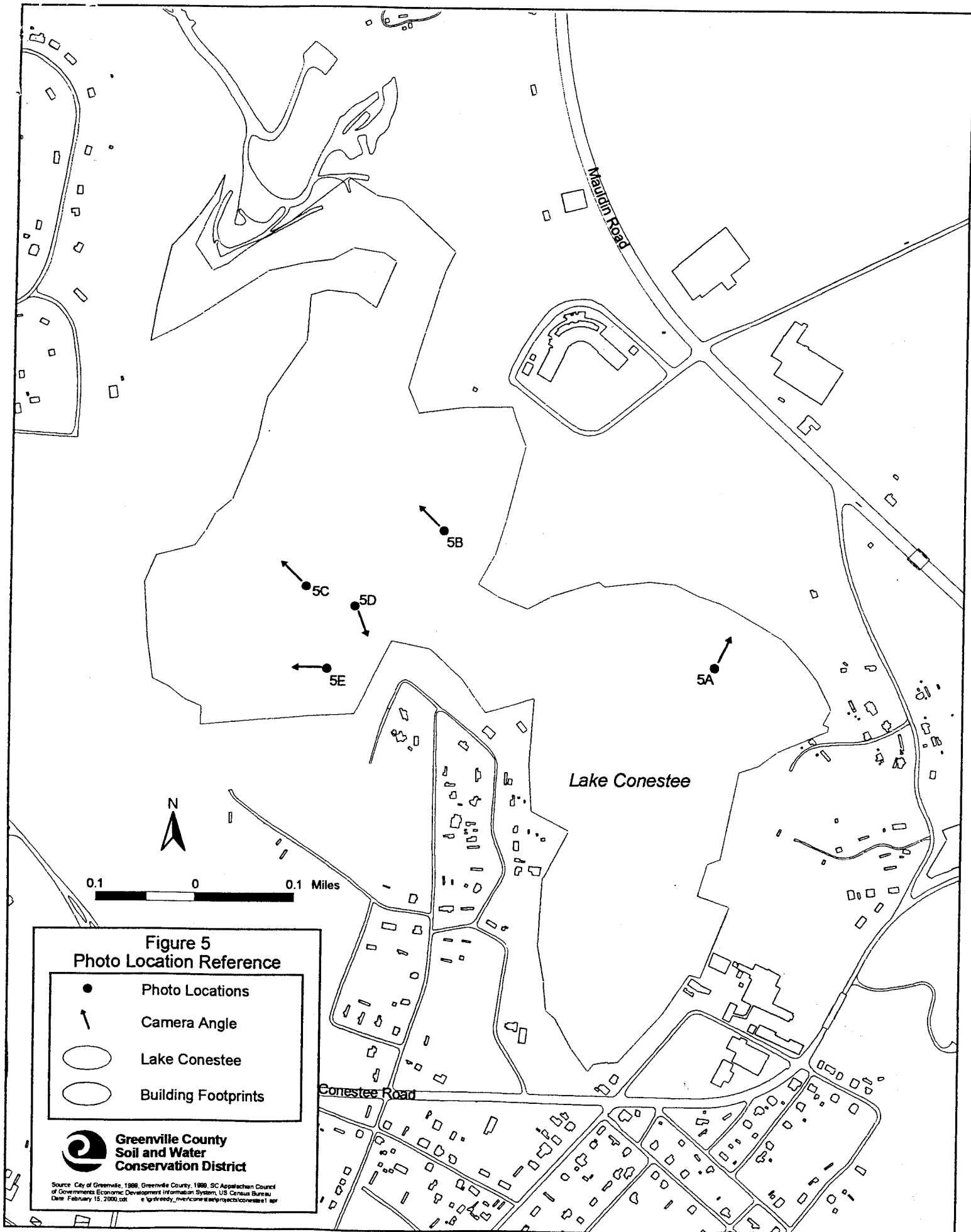


Figure 4B
Lake Conestee Aerial Photo - 1994



**Greenville County
Soil and Water
Conservation District**

Source: NAPP 1994



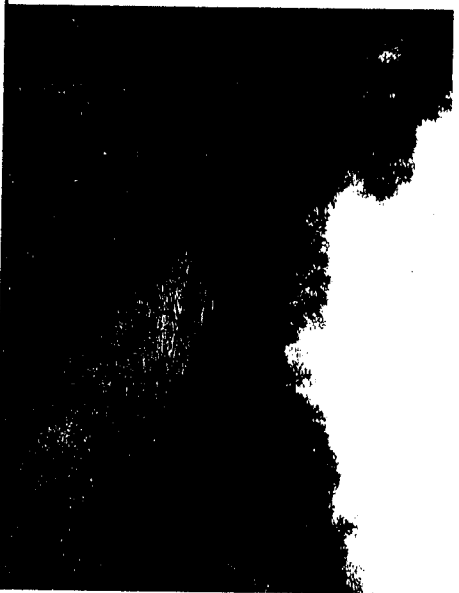
Lake Conastee, SC



Lake Conastee, SC

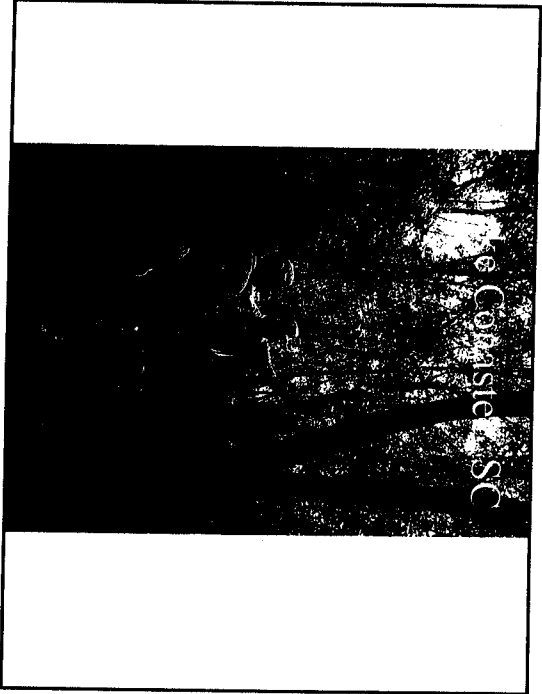


Lake Conastee, SC

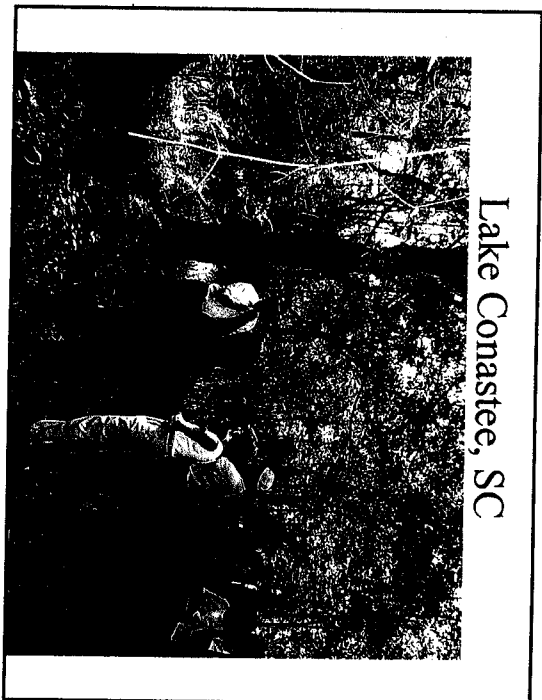


Lake Conastee, SC

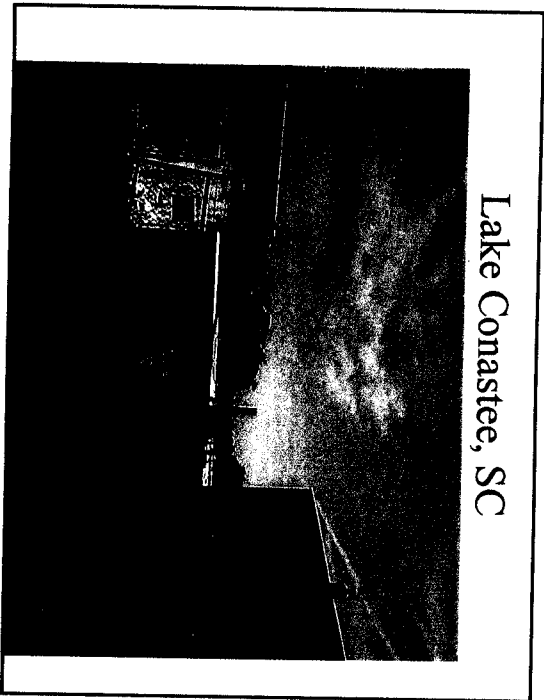




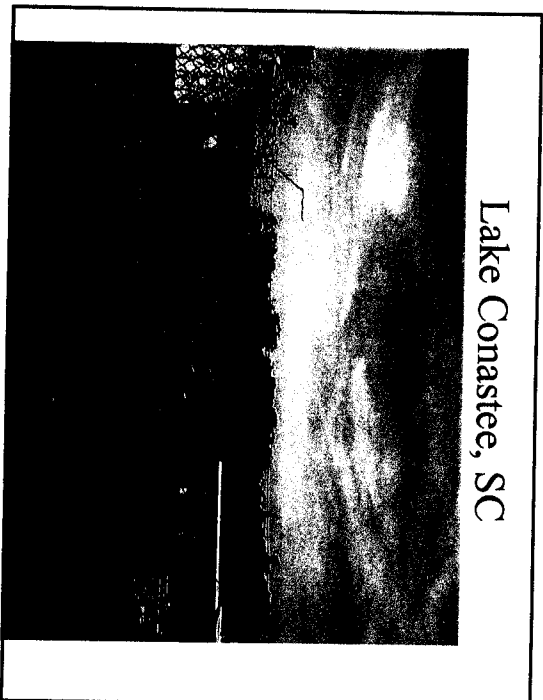
Lake Conastee, SC



Lake Conastee, SC

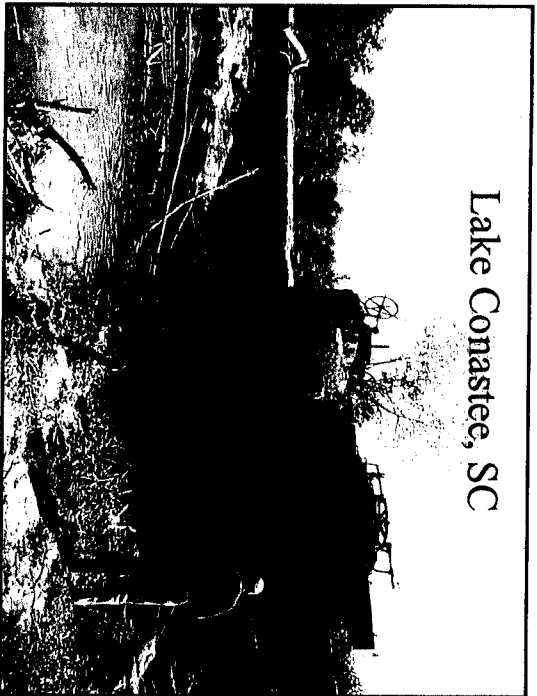


Lake Conastee, SC

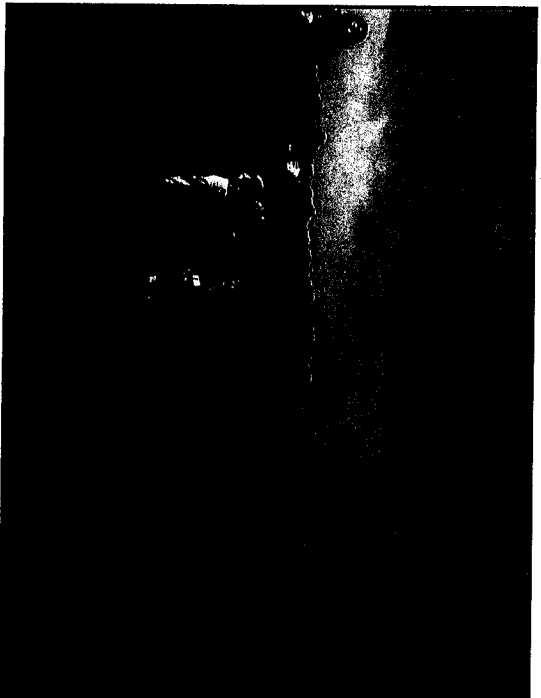
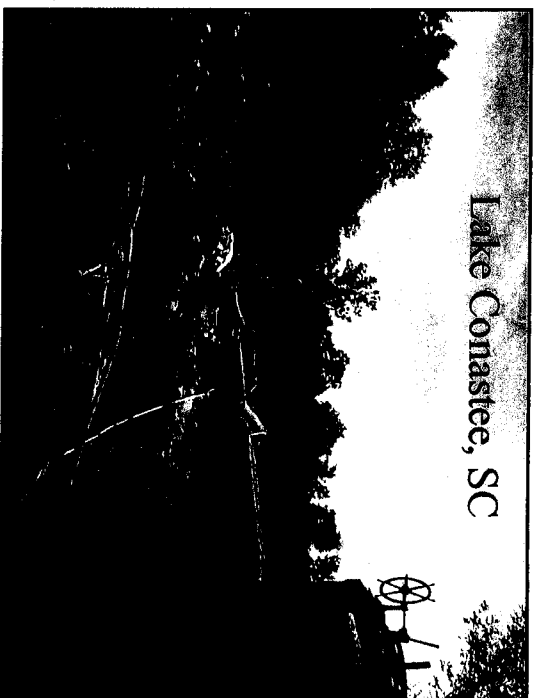


Lake Conastee, SC

Lake Conastee, SC



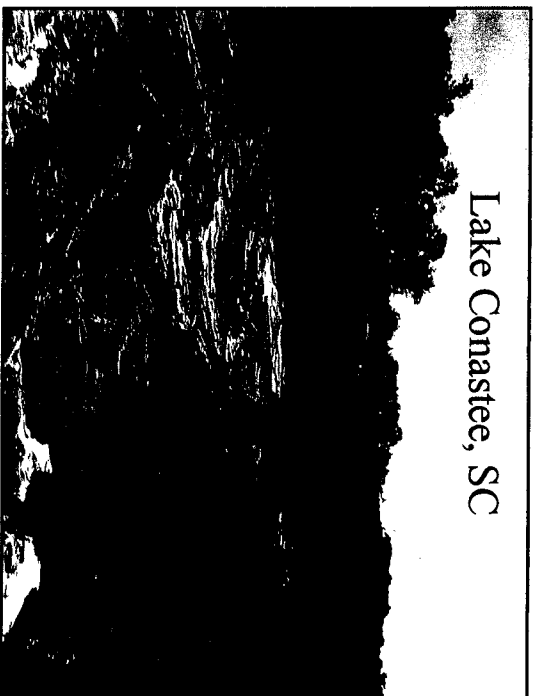
Lake Conastee, SC



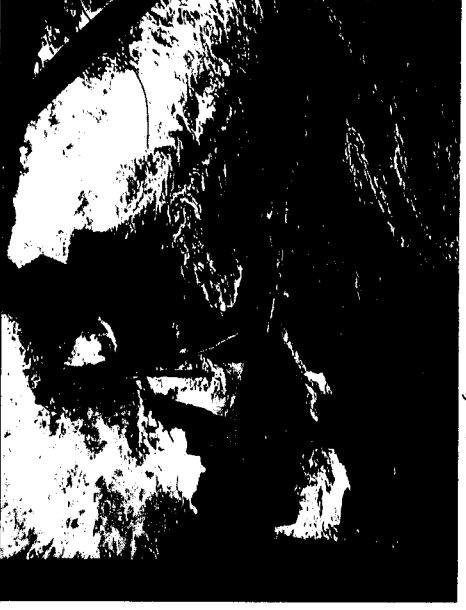
Lake Conastee, SC

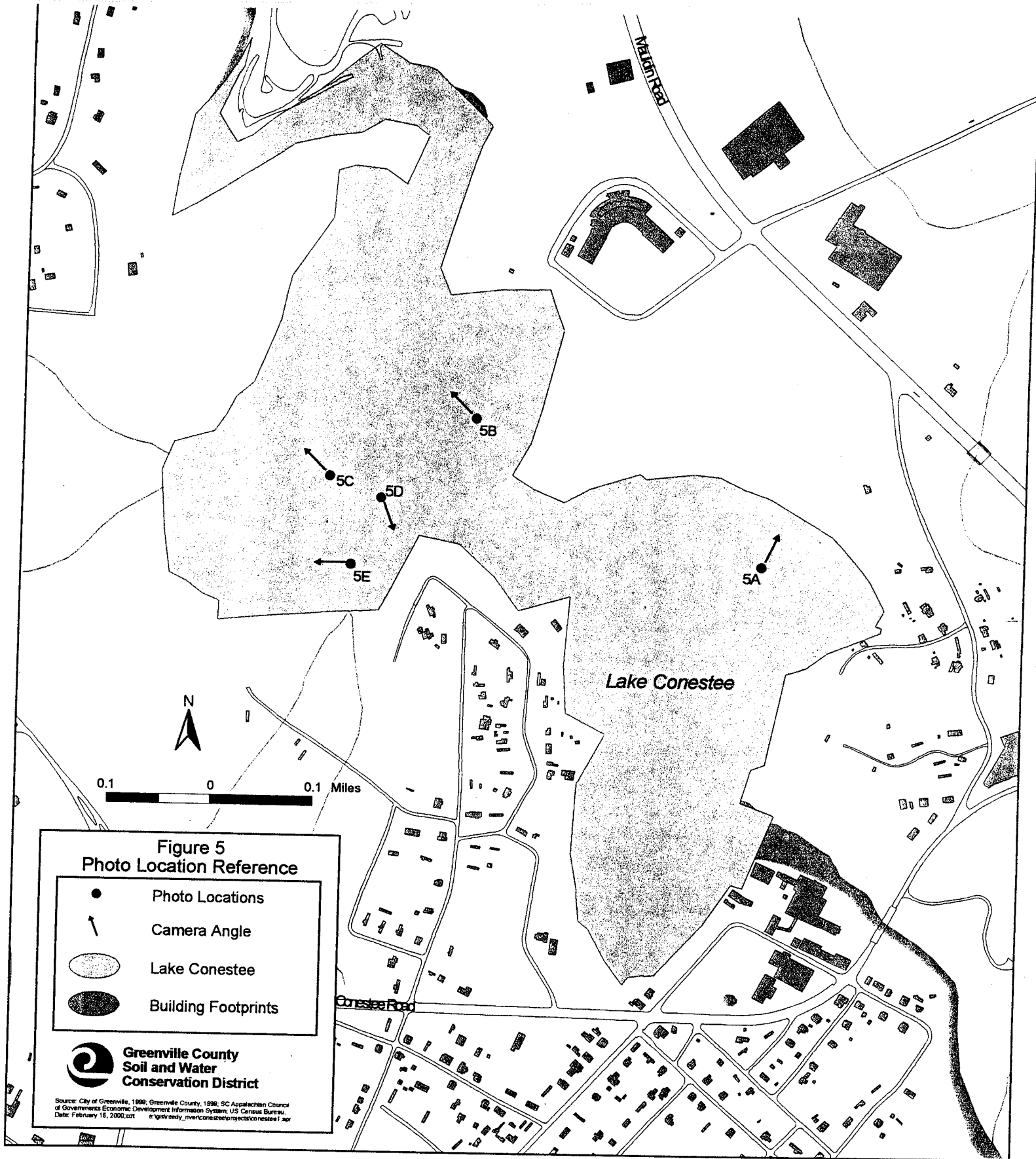


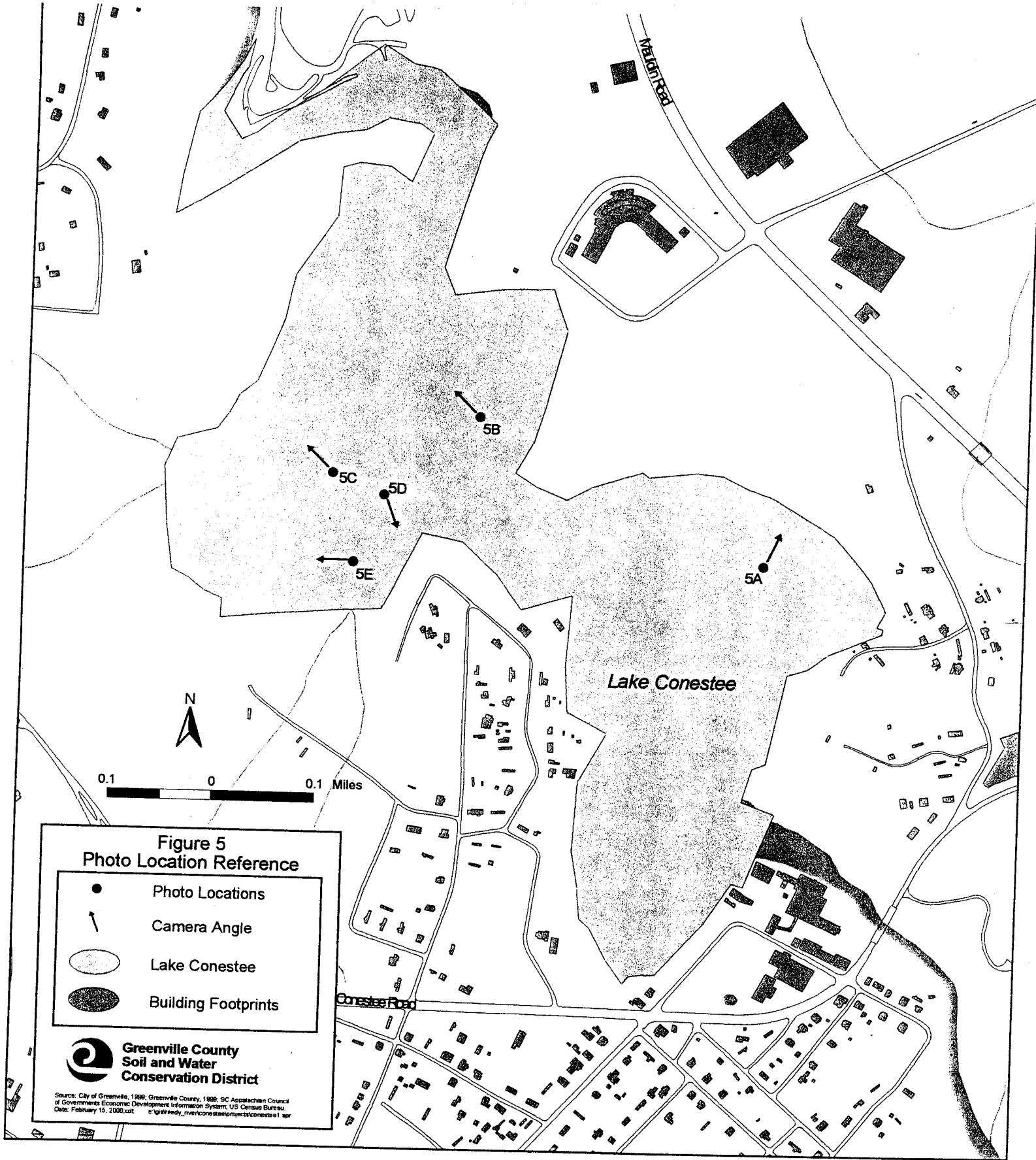
Lake Conastee, SC



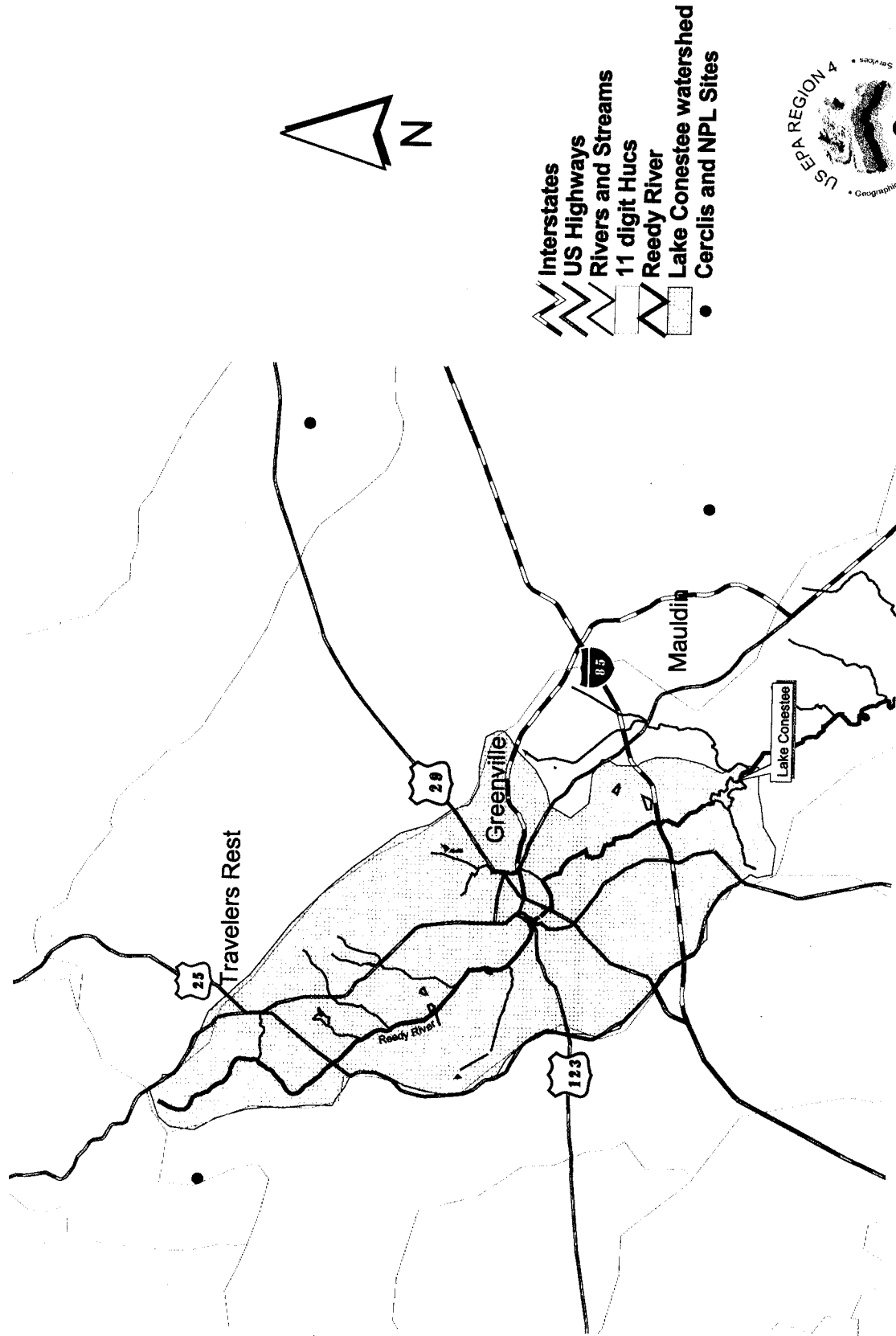
Lake Conastee, SC







Lake Conestee Watershed



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INFORMATION

DOCUMENT NBR \$00 436 268

01/24/2001 Ltr from Diane Gathie

Metal Sample Analysis



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4

Science and Ecosystem Support Division
980 College Station Road
Athens, Georgia 30605-2720

MEMORANDUM

Date: 01/24/2001

Subject: Results of METALS Sample Analysis
01-0150 Lake Conestee
Conestee, SC

From: Guthrie, Diane

A handwritten signature in dark ink, appearing to read "DAG", is written over the name "Diane Guthrie".

To: Dick, Barbara

CC: Gail Jeter
SCDHEC

Thru: QA Office

Attached are the results of analysis of samples collected as part of the subject project. If you have any questions, please contact me.

ATTACHMENT

December 26, 2000

INORGANIC DATA QUALIFIERS REPORT

se Number: 28761

oject Number: 01-0150

te: Lake Conestee

Sample No.	Element	Flag	Reason
1556	Sb	U	Baseline instability in cal blanks
	As	U	% RSD > 20% for ICP multiple exposures and result > IDL, but < CRDL
	Co	U	Baseline instability in cal blanks
	Hg	J	Matrix spike recovery = 74.1%
	Ni	U	Baseline instability in cal blanks
	K	J	Serial dilution percent difference = 20.4%
1557	Sb	U	Baseline instability in cal blanks
	Co	U	Baseline instability in cal blanks
	Hg	J	Matrix spike recovery = 74.1%
	Ni	U	Baseline instability in cal blanks
	K	J	Serial dilution percent difference = 20.4%
1558	As	J	% RSD > 20% for ICP multiple exposures
	Co	U	Baseline instability in cal blanks
	Hg	J	Matrix spike recovery = 74.1%
	Ni	U	Baseline instability in cal blanks
	K	J	Serial dilution percent difference = 20.4%
1559	Sb	U	Baseline instability in cal blanks
	Co	U	Baseline instability in cal blanks
	Hg	J	Matrix spike recovery = 74.1%
	Ni	U	Baseline instability in cal blanks
	K	J	Serial dilution percent difference = 20.4%
1560	Co	U	Baseline instability in cal blanks
	Hg	J	Matrix spike recovery = 74.1%
	Ni	U	Baseline instability in cal blanks
	K	J	Serial dilution percent difference = 20.4%
	Ag	U	% RSD > 20% for ICP multiple exposures and result > IDL, but < CRDL
1561	As	U	% RSD > 20% for ICP multiple exposures and result > IDL, but < CRDL
	Co	U	Baseline instability in cal blanks
	Hg	J	Matrix spike recovery = 74.1%
	Ni	U	Baseline instability in cal blanks
	K	J	Serial dilution percent difference = 20.4%
1562	Sb	U	Baseline instability in cal blanks
	Co	U	Baseline instability in cal blanks
	Hg	J	Matrix spike recovery = 74.1%
	K	J	Serial dilution percent difference = 20.4%
1563	Sb	U	Baseline instability in cal blanks
	Co	U	Baseline instability in cal blanks
	Hg	J	Matrix spike recovery = 74.1%
	Ni	U	Baseline instability in cal blanks
	K	J	Serial dilution percent difference = 20.4%

December 26, 2000

INORGANIC DATA QUALIFIERS REPORT (continued)

Case Number: 28761

Project Number: 01-0150

Site: Lake Conestee

Sample No.	Element	Flag	Reason
1564	Sb	U	Baseline instability in cal blanks
	Co	U	Baseline instability in cal blanks
	Hg	J	Matrix spike recovery = 74.1%
	K	J	Serial dilution percent difference = 20.4%
1565	Co	U	Baseline instability in cal blanks
	Hg	J	Matrix spike recovery = 74.1%
	Ni	U	Baseline instability in cal blanks
	K	J	Serial dilution percent difference = 20.4%
1566	Al	UJ	Matrix spike recovery = 243.6% Blind spike recovery < action limit Positives in cal and blind blanks
	Ba	U	Positives in blind blank
	Ca	U	Positives in cal, prep, and blind blanks
	Cr	U	Baseline instability in cal blanks
	Cu	U	Baseline instability in prep blank
	Fe	U	Positives in cal and blind blanks
	Mg	U	Positives in cal, prep, and blind blanks
	Mn	U	Baseline instability in cal and blind blanks
	Ni	U	Baseline instability in cal blanks
	K	U	Positives in cal and blind blanks
	Ag	J	Matrix spike recovery = 59%
	Tl	J	Matrix duplicate RPD = 200%
	V	U	Baseline instability in cal and blind blanks
	Zn	U	Positives in blind blank
1567	Hg	J	Matrix spike recovery = 68.5%
	Ni	J	Serial dilution percent difference = 16%
	K	J	Serial dilution percent difference = 29.9%
	Se	U	% RSD > 20% for ICP multiple exposures and result > IDL, but < CRDL
	CN	U	Positive reported < lowest std on cal curve
1568	Sb	U	Baseline instability in cal blanks
	Hg	J	Matrix spike recovery = 68.5%
	Ni	J	Serial dilution percent difference = 16%
	K	J	Serial dilution percent difference = 29.9%
	CN	U	Positive reported < lowest std on cal curve
1569	Sb	U	Baseline instability in cal blanks
	Hg	J	Matrix spike recovery = 68.5%
	Ni	J	Serial dilution percent difference = 16%
	K	J	Serial dilution percent difference = 29.9%
	CN	U	Positive reported < lowest std on cal curve
1570	Sb	U	Baseline instability in cal blanks
	Hg	J	Matrix spike recovery = 68.5%
	Ni	J	Serial dilution percent difference = 16%
	K	J	Serial dilution percent difference = 29.9%

INORGANIC DATA QUALIFIERS REPORT (continued)

December 26, 2000

Case Number: 28761

Project Number: 01-0150

Site: Lake Conestee

Sample No.	Element	Flag	Reason
1571	Sb	U	Baseline instability in cal blanks
	Hg	J	Matrix spike recovery = 68.5%
	Ni	J	Serial dilution percent difference = 16%
	K	J	Serial dilution percent difference = 29.9%
1572	Hg	J	Matrix spike recovery = 68.5%
	Ni	J	Serial dilution percent difference = 16%
	K	J	Serial dilution percent difference = 29.9%
1573	Sb	U	Baseline instability in cal blanks
	Co	U	Baseline instability in cal blanks
	Hg	J	Matrix spike recovery = 74.1%
	Ni	U	Baseline instability in cal blanks
	K	J	Serial dilution percent difference = 20.4%
	Ag	U	% RSD > 20% for ICP multiple exposures and result > IDL, but < CRDL
1574	Sb	U	Baseline instability in cal blanks
	Hg	J	Matrix spike recovery = 74.1%
	Ni	U	Baseline instability in cal blanks
	K	J	Serial dilution percent difference = 20.4%
	CN	U	Positive reported < lowest std n cal curve
1575	Al	J	Matrix spike recovery = 243.6%
	Cr	U	Blind spike recovery < action limit
	Ag	UJ	Baseline instability in cal blanks
			Matrix spike recovery = 59%
			% RSD > 20% for ICP multiple exposures and result > IDL, but < CRDL
	Tl	J	Matrix duplicate RPD = 200%
1576	Sb	U	Baseline instability in cal blanks
	Co	U	Baseline instability in cal blanks
	Hg	J	Matrix spike recovery = 74.1%
	K	J	Serial dilution percent difference = 20.4%
	Ag	U	% RSD > 20% for ICP multiple exposures and result > IDL, but < CRDL
	CN	U	Positive reported < lowest std on cal curve
1577	Sb	U	Baseline instability in cal blanks
	Co	U	Baseline instability in cal blanks
	Hg	J	Matrix spike recovery = 74.1%
	Ni	U	Baseline instability in cal blanks
	K	J	Serial dilution percent difference = 20.4%

INORGANIC DATA QUALIFIERS REPORT (continued)

December 26, 2000

Case Number: 28761

Project Number: 01-0150

Site: Lake Conestee

Sample No.	Element	Flag	Reason
1578	Al	J	Matrix spike recovery = 243.6%
	Cu	U	Blind spike recovery < action limit
	Ni	U	Baseline instability in prep blank
	Ag	J	Baseline instability in cal blanks
	Tl	J	Matrix spike recovery = 59%
	V	J	Matrix duplicate RPD = 200%
	Zn	U	Baseline instability in cal and blind blanks
		U	Positives in blind blank
1579	Al	J	Matrix spike recovery = 243.6%
	Co	U	Blind spike recovery < action limit
	Cu	U	Baseline instability in cal blanks
	Ag	U	Baseline instability in prep blank
	Tl	J	Matrix spike recovery = 59%
		UJ	Matrix duplicate RPD = 200%
	V	U	Baseline instability in cal blanks
	Zn	U	Baseline instability in cal and blind blanks
		U	Positives in blind blank
1580	As	J	% RSD > 20% for ICP multiple exposures
	Cd	U	Baseline instability in cal blanks
	Hg	J	Matrix spike recovery = 49%
	K	J	Serial dilution percent difference = 23.9%
	Ag	J	Matrix spike recovery = 46.2%
	Tl	J	% RSD > 20% for ICP multiple exposures
1581	Al	UJ	Blind spike recovery < action limit
	Ba	U	Positives in cal and blind blanks
	Cu	J	Serial dilution percent difference = 10.9%
		U	% RSD > 20% for ICP multiple exposures and result > IDL, but < CRDL
	Fe	J	Matrix spike recovery = 71.7%
	Mn	J	Matrix duplicate RPD = 29.5%
	K	J	Serial dilution percent difference = 16.6%
	Se	J	Matrix spike recovery = 69.4%
	Tl	J	Matrix duplicate RPD = 200%
		UJ	Baseline instability in cal blanks
1582	Sb	U	Baseline instability in cal and prep blanks
	Co	U	Baseline instability in cal and prep blanks
	Hg	J	Matrix spike recovery = 49%
	K	J	Serial dilution percent difference = 23.9%
	Ag	J	Matrix spike recovery = 46.2%
		UJ	Baseline instability in cal and prep blanks
	Tl	U	Baseline instability in cal blanks

December 26, 2000

INORGANIC DATA QUALIFIERS REPORT (continued)

Case Number: 28761Project Number: 01-0150Site: Lake Conestee

Sample No.	Element	Flag	Reason
1583	Al	UJ	Blind spike recovery < action limit Positives in cal and blind blanks
	Ba	J	Serial dilution percent difference = 10.9%
	Fe	J	Matrix spike recovery = 71.7%
	Mn	J	Matrix duplicate RPD = 29.5%
	K	J	Serial dilution percent difference = 16.6%
	Se	J	Matrix spike recovery = 69.4%
	Tl	UJ	Matrix duplicate RPD = 200% Baseline instability in cal blanks
1584	Sb	U	Baseline instability in cal and prep blanks
	As	J	% RSD > 20% for ICP multiple exposures
	Cd	U	Baseline instability in cal blanks
	Co	U	Baseline instability in cal and prep blanks
	Hg	J	Matrix spike recovery = 49%
	K	J	Serial dilution percent difference = 23.9%
	Ag	J	Matrix spike recovery = 46.2%
1585	Al	UJ	Blind spike recovery < action limit Positives in cal and blind blanks
	Ba	J	Serial dilution percent difference = 10.9%
	Cr	U	Baseline instability in cal blanks
	Co	U	Baseline instability in cal blanks
	Cu	U	% RSD > 20% for ICP multiple exposures and result > IDL, but < CRDL
	Fe	J	Matrix spike recovery = 71.7%
	Mn	J	Matrix duplicate RPD = 29.5%
	K	J	Serial dilution percent difference = 16.6%
	Se	J	Matrix spike recovery = 69.4%
	Tl	J	Matrix duplicate RPD = 200%
1586	Cd	U	Baseline instability in cal blanks
	Co	U	Baseline instability in cal and prep blanks
	Hg	J	Matrix spike recovery = 49%
	K	J	Serial dilution percent difference = 23.9%
	Ag	UJ	Matrix spike recovery = 46.2% Baseline instability in cal and prep blanks
1587	Co	U	Baseline instability in cal and prep blanks
	Hg	J	Matrix spike recovery = 49%
	K	J	Serial dilution percent difference = 23.9%
	Ag	J	Matrix spike recovery = 46.2%
	Tl	U	Baseline instability in cal blanks
	V	U	Baseline instability in cal blanks

December 26, 2000

INORGANIC DATA QUALIFIERS REPORT (continued)

Case Number: 28761

Project Number: 01-0150

Site: Lake Conestee

Sample No.	Element	Flag	Reason
1588	Al	UJ	Blind spike recovery < action limit
			Positives in cal and blind blanks
	Ba	J	Serial dilution percent difference = 10.9%
	Cr	U	Baseline instability in cal blanks
	Co	U	Baseline instability in cal blanks
	Cu	U	% RSD > 20% for ICP multiple exposures and result > IDL, but < CRDL
	Fe	J	Matrix spike recovery = 71.7%
	Mn	J	Matrix duplicate RPD = 29.5%
	K	J	Serial dilution percent difference = 16.6%
	Se	J	Matrix spike recovery = 69.4%
	Ag	U	Baseline instability in cal blanks
1589	Tl	J	Matrix duplicate RPD = 200%
	Sb	U	Baseline instability in cal and prep blanks
	Cd	U	Baseline instability in cal blanks
	Co	U	Baseline instability in cal and prep blanks
	Hg	J	Matrix spike recovery = 49%
	K	J	Serial dilution percent difference = 23.9%
1590	Ag	UJ	Matrix spike recovery = 46.2%
			Baseline instability in cal and prep blanks
	Al	UJ	Blind spike recovery < action limit
			Positives in cal and blind blanks
	As	U	Baseline instability in cal and prep blanks
	Ba	J	Serial dilution percent difference = 10.9%
	Cr	U	Baseline instability in cal blanks
	Co	U	Baseline instability in cal blanks
	Cu	U	% RSD > 20% for ICP multiple exposures and result > IDL, but < CRDL
	Fe	J	Matrix spike recovery = 71.7%
	Mn	J	Matrix duplicate RPD = 29.5%
	K	J	Serial dilution percent difference = 16.6%
	Se	J	Matrix spike recovery = 69.4%
	Tl	UJ	Matrix duplicate RPD = 200%
			Baseline instability in cal blanks
	V	U	Baseline instability in cal and blind blanks

INORGANIC DATA QUALIFIERS REPORT (continued)

December 26, 2000

Case Number: 28761

Project Number: 01-0150

Site: Lake Conestee

Sample No.	Element	Flag	Reason
1591	Al	UJ	Blind spike recovery < action limit
	Ca	U	Positives in cal and blind blanks
	Cu	U	Positives in cal and blind blanks
			% RSD > 20% for ICP multiple exposures and result > IDL, but < CRDL
	Fe	UJ	Matrix spike recovery = 71.7%
	Mg	U	Positives in cal and blind blanks
	Mn	UJ	Positives in cal and blind blanks
			Matrix duplicate RPD = 29.5%
	K	UJ	Baseline instability in blind blanks
			Serial dilution percent difference = 16.6%
	Se	J	Positives in blind blanks
	Tl	J	Matrix spike recovery = 69.4%
			Matrix duplicate RPD = 200%
1594	Hg	J	Matrix spike recovery = 68.5%
	Ni	J	Serial dilution percent difference = 16%
	K	J	Serial dilution percent difference = 29.9%
	Se	J	% RSD > 20% for ICP multiple exposures
1595	Sb	U	Baseline instability in cal blanks
	Hg	J	Matrix spike recovery = 68.5%
	Ni	J	Serial dilution percent difference = 16%
	K	J	Serial dilution percent difference = 29.9%
	Ag	U	% RSD > 20% for ICP multiple exposures and result > IDL, but < CRDL
1596	Sb	U	Baseline instability in cal blanks
	Hg	J	Matrix spike recovery = 68.5%
	Ni	J	Serial dilution percent difference = 16%
	K	J	Serial dilution percent difference = 29.9%
1597	Al	J	Blind spike recovery < action limit
	Cu	J	Serial dilution percent difference = 20.6%
	Ag	J	Matrix spike recovery = 70.2%
	V	U	Baseline instability in cal and blind blanks
1598	Al	R	Blind spike recovery < action limit
	Cu	J	Serial dilution percent difference = 20.6%
	Fe	J	% RSD > 20% for ICP multiple exposures
	Ag	J	Matrix spike recovery = 70.2%
1599	As	J	% RSD > 20% for ICP multiple exposures
	Cd	U	Baseline instability in cal blanks
	Co	U	Baseline instability in cal blanks
	K	J	Serial dilution percent difference = 26.3%
	Se	R	Matrix spike recovery = 0%

INORGANIC DATA QUALIFIERS REPORT (continued)

December 26, 2000

Case Number: 28761

Project Number: 01-0150

Site: Lake Conestee

Sample No.	Element	Flag	Reason
1600	Al	J	Blind spike recovery < action limit
	Cr	U	Baseline instability in cal blanks
	Co	U	Baseline instability in cal blanks
	Ni	U	% RSD > 20% for ICP multiple exposures and results > IDL, but < CRDL
	K	J	Serial dilution percent difference = 14.5%
	Ag	UJ	Matrix spike recovery = 44.7%
	Zn	J	Baseline instability in cal blanks Serial dilution percent difference = 10.3%
1601	Sb	U	Baseline instability in cal blanks
	Hg	J	Matrix spike recovery = 68.5%
	Ni	J	Serial dilution percent difference = 16%
	K	J	Serial dilution percent difference = 29.9%
	Ag	U	% RSD > 20% for ICP multiple exposures and result > IDL, but < CRDL
1602	Sb	U	Baseline instability in cal blanks
	Hg	J	Matrix spike recovery = 68.5%
	Ni	J	Serial dilution percent difference = 16%
	K	J	Serial dilution percent difference = 29.9%
	Ag	U	% RSD > 20% for ICP multiple exposures and result > IDL, but < CRDL
1603	Sb	U	Baseline instability in cal blanks
	Hg	J	Matrix spike recovery = 68.5%
	Ni	J	Serial dilution percent difference = 16%
	K	J	Serial dilution percent difference = 29.9%
	Ag	U	% RSD > 20% for ICP multiple exposures and result > IDL, but < CRDL
1604	Sb	U	Baseline instability in cal blanks
	Hg	J	Matrix spike recovery = 68.5%
	Ni	J	Serial dilution percent difference = 16%
	K	J	Serial dilution percent difference = 29.9%
	Ag	U	% RSD > 20% for ICP multiple exposures and result > IDL, but < CRDL
1605	Sb	U	Baseline instability in cal blanks
	Hg	J	Matrix spike recovery = 68.5%
	Ni	J	Serial dilution percent difference = 16%
	K	J	Serial dilution percent difference = 29.9%
	Tl	U	% RSD > 20% for ICP multiple exposures and result > IDL, but < CRDL
1606	Sb	U	Baseline instability in cal blanks
	Hg	J	Matrix spike recovery = 68.5%
	Ni	J	Serial dilution percent difference = 16%
	K	J	Serial dilution percent difference = 29.9%

INORGANIC DATA QUALIFIERS REPORT (continued)

December 26, 2000

Case Number: 28761Project Number: 01-0150Site: Lake Conestee

Sample No.	Element	Flag	Reason
1607	Hg	J	Matrix spike recovery = 68.5%
	Ni	J	Serial dilution percent difference = 16%
	K	J	Serial dilution percent difference = 29.9%
	CN	U	Positive reported < Lowest std on cal curve
1608	Al	J	Blind spike recovery < action limit
	As	U	Baseline instability in cal and prep blanks
	Cu	J	Serial dilution percent difference = 20.6%
	Ag	J	Matrix spike recovery = 70.2%
	Tl	U	% RSD > 20% for ICP multiple exposures and result > IDL, but < CRDL
1609	Sb	U	Baseline instability in cal and prep blanks
	As	U	Baseline instability in cal blanks
	Co	U	Baseline instability in cal blanks
	K	J	Serial dilution percent difference = 26.3%
	Se	J	Matrix spike recovery = 0%
	Tl	U	Baseline instability in cal blanks
1610	Al	J	Blind spike recovery < action limit
	Cr	U	Baseline instability in cal blanks
	Co	U	Baseline instability in cal blanks
	K	J	Serial dilution percent difference = 14.5%
	Ag	J	Matrix spike recovery = 44.7%
	Tl	U	Baseline instability in cal blanks
	V	U	Baseline instability in cal and blind blanks
	Zn	J	Serial dilution percent difference = 10.3%
1611	As	U	Baseline instability in cal blanks
	K	J	Serial dilution percent difference = 26.3%
	Se	UJ	Matrix spike recovery = 0%
			Baseline instability in cal blanks
1612	Sb	U	Baseline instability in cal and prep blanks
	Hg	J	Matrix spike recovery = 49%
	K	J	Serial dilution percent difference = 23.9%
	Ag	J	Matrix spike recovery = 46.2%
	Tl	U	Baseline instability in cal blanks
1613	Sb	U	Baseline instability in cal and prep blanks
	Hg	J	Matrix spike recovery = 49%
	K	J	Serial dilution percent difference = 23.9%
	Ag	UJ	Matrix spike recovery = 46.2%
			Baseline instability in cal and prep blanks

INORGANIC DATA QUALIFIERS REPORT (continued)

December 26, 2000

Case Number: 28761

Project Number: 01-0150

Site: Lake Conestee

Sample No.	Element	Flag	Reason
1614	As	U	Baseline instability in cal blanks
	Cd	U	Baseline instability in cal blanks
	Co	U	Baseline instability in cal and prep blanks
	Hg	J	Matrix spike recovery = 49%
	K	J	Serial dilution percent difference = 23.9%
	Ag	J	Matrix spike recovery = 46.2%
	V	U	Baseline instability in cal blanks
1615	Cd	U	Baseline instability in cal blanks
	Co	U	Baseline instability in cal and prep blanks
	Hg	J	Matrix spike recovery = 49%
	K	J	Serial dilution percent difference = 23.9%
	Ag	J	Matrix spike recovery = 46.2%
	CN	U	Positive reported < lowest std n cal curve
1616	Sb	U	Baseline instability in cal and prep blanks
	Co	U	Baseline instability in cal and prep blanks
	Hg	J	Matrix spike recovery = 49%
	K	J	Serial dilution percent difference = 23.9%
	Ag	UU	Matrix spike recovery = 46.2%
1617	As	J	% RSD > 20% for ICP multiple exposures
	Co	U	Baseline instability in cal and prep blanks
	Hg	J	Matrix spike recovery = 49%
	K	J	Serial dilution percent difference = 23.9%
	Ag	J	Matrix spike recovery = 46.2%
1618	As	U	Baseline instability in cal blanks
	Cd	U	Baseline instability in cal blanks
	Co	U	Baseline instability in cal and prep blanks
	Hg	J	Matrix spike recovery = 49%
	K	J	Serial dilution percent difference = 23.9%
	Ag	UU	Matrix spike recovery = 46.2%
1633	Al	UU	Baseline instability in cal and prep blanks
			Blind spike recovery < action limit
			Positives in cal and blind blanks
	Cd	U	Baseline instability in cal blanks
	Cr	U	Baseline instability in cal blanks
	K	J	Serial dilution percent difference = 14.5%
	Ag	J	Matrix spike recovery = 44.7%
	Tl	U	Baseline instability in cal blanks
	V	U	Baseline instability in cal and blind blanks
	Zn	J	Serial dilution percent difference = 10.3%

INORGANIC DATA QUALIFIERS REPORT (continued)

December 26, 2000

Case Number: 28761Project Number: 01-0150Site: Lake Conestee

Sample No.	Element	Flag	Reason
1665	Co	U	Baseline instability in cal and prep blanks
	Hg	J	Matrix spike recovery = 49%
	K	J	Serial dilution percent difference = 23.9%
	Ag	J	Matrix spike recovery = 46.2%
	V	U	Baseline instability in cal blanks
1666	As	U	Baseline instability in cal blanks
	Cd	U	Baseline instability in cal blanks
	Co	U	Baseline instability in cal blanks
	K	J	Serial dilution percent difference = 26.3%
	Se	R	Matrix spike recovery = 0%
	Tl	U	Baseline instability in cal blanks
	V	U	Baseline instability in cal blanks

Sample 1556 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Program: SF

Id/Station: DEL0204 /

Media: SOIL

Conestee, SC

Case No: 28761

MD No: 0D15

D No: 0D15

Inorg Contractor: CHEMED

Org Contractor: MITKEM

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 11/29/2000 11:00

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
2700	MG/KG	ALUMINUM
1.4U	MG/KG	ANTIMONY
1.4U	MG/KG	ARSENIC
34	MG/KG	BARIUM
0.23	MG/KG	BERYLLIUM
1.1	MG/KG	CADMIUM
130	MG/KG	CALCIUM
93	MG/KG	CHROMIUM
1.9U	MG/KG	COBALT
8.7	MG/KG	COPPER
9000	MG/KG	IRON
26	MG/KG	LEAD
510	MG/KG	MAGNESIUM
59	MG/KG	MANGANESE
0.10UJ	MG/KG	TOTAL MERCURY
1.9U	MG/KG	NICKEL
450J	MG/KG	POTASSIUM
0.79U	MG/KG	SELENIUM
0.13U	MG/KG	SILVER
49U	MG/KG	SODIUM
1.0U	MG/KG	THALLIUM
11	MG/KG	VANADIUM
32	MG/KG	ZINC
0.15U	MG/KG	CYANIDE
5	%	% MOISTURE

WETALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample	1557	FY 2001	Project: 01-0150	Produced by: Guthrie, Diane
METALS SCAN				Requestor:
Facility:	Lake Conestee	Conestee, SC	Project Leader: BDICK	
Program:	SF		Beginning: 11/29/2000 11:00	
Id/Station:	DEL0248 /	Case No: 28761	Ending:	
Media:	SOIL	MD No: 0D16	Inorg Contractor: CHEMED	
		D No: 0D16	Org Contractor: MITKEM	
DATA REPORTED ON DRY WEIGHT BASIS				

RESULTS	UNITS	ANALYTE
24000	MG/KG	ALUMINUM
8.2U	MG/KG	ANTIMONY
9.6	MG/KG	ARSENIC
260	MG/KG	BARIUM
1.2	MG/KG	BERYLLIUM
2.9	MG/KG	CADMIUM
2300	MG/KG	CALCIUM
1300	MG/KG	CHROMIUM
13U	MG/KG	COBALT
180	MG/KG	COPPER
40000	MG/KG	IRON
330	MG/KG	LEAD
3200	MG/KG	MAGNESIUM
430	MG/KG	MANGANESE
1.2J	MG/KG	TOTAL MERCURY
14U	MG/KG	NICKEL
3100J	MG/KG	POTASSIUM
1.4U	MG/KG	SELENIUM
4.8	MG/KG	SILVER
200	MG/KG	SODIUM
1.8U	MG/KG	THALLIUM
77	MG/KG	VANADIUM
640	MG/KG	ZINC
0.28U	MG/KG	CYANIDE
48	%	% MOISTURE

-average value, NA-not analyzed, NAI-interferences, J-estimated value, N-presumptive evidence of presence of material.
 -actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
 -qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

WETALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1558 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Program: SF

Id/Station: DEL0104 /

Media: SOIL

Conestee, SC

Case No: 28761

MD No: 0D19

D No: 0D19

Inorg Contractor: CHEMED

Org Contractor: MITKEM

Produced by: Guthrie, Diane
Requestor:

Project Leader: BDICK

Beginning: 11/29/2000 09:45

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
3400	MG/KG	ALUMINUM
1.1U	MG/KG	ANTIMONY
2.2J	MG/KG	ARSENIC
31	MG/KG	BARIUM
0.20	MG/KG	BERYLLIUM
0.54	MG/KG	CADMIUM
200	MG/KG	CALCIUM
44	MG/KG	CHROMIUM
2.2U	MG/KG	COBALT
6.2	MG/KG	COPPER
6200	MG/KG	IRON
19	MG/KG	LEAD
720	MG/KG	MAGNESIUM
56	MG/KG	MANGANESE
0.10UJ	MG/KG	TOTAL MERCURY
1.9U	MG/KG	NICKEL
640J	MG/KG	POTASSIUM
0.82U	MG/KG	SELENIUM
0.13U	MG/KG	SILVER
51U	MG/KG	SODIUM
1.0U	MG/KG	THALLIUM
11	MG/KG	VANADIUM
39	MG/KG	ZINC
0.16U	MG/KG	CYANIDE
10	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.

K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.

R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

METALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1559 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee
Program: SF
Id/Station: DEL0148 /
Media: SOIL

Conestee, SC

Case No: 28761
MD No: 0D20
D No: 0D20

Inorg Contractor: CHEMED
Org Contractor: MITKEM

Produced by: Guthrie, Diane
Requestor:
Project Leader: BDICK
Beginning: 11/29/2000 09:45
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
25000	MG/KG	ALUMINUM
5.0U	MG/KG	ANTIMONY
10	MG/KG	ARSENIC
210	MG/KG	BARIUM
1.1	MG/KG	BERYLLIUM
1.6	MG/KG	CADMIUM
1400	MG/KG	CALCIUM
1100	MG/KG	CHROMIUM
11U	MG/KG	COBALT
100	MG/KG	COPPER
33000	MG/KG	IRON
210	MG/KG	LEAD
2700	MG/KG	MAGNESIUM
340	MG/KG	MANGANESE
1.8J	MG/KG	TOTAL MERCURY
12U	MG/KG	NICKEL
2500J	MG/KG	POTASSIUM
1.4U	MG/KG	SELENIUM
3.3	MG/KG	SILVER
87U	MG/KG	SODIUM
1.8U	MG/KG	THALLIUM
66	MG/KG	VANADIUM
440	MG/KG	ZINC
0.27U	MG/KG	CYANIDE
46	%	% MOISTURE

- average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
- actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
- qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

WETALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1560 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Program: SF

Id/Station: EL011216 /

Media: SOIL

Conestee, SC

Case No: 28761

MD No: 0D21

D No: 0D21

Inorg Contractor: CHEMED

Org Contractor: MITKEM

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 11/29/2000 09:45

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
40000	MG/KG	ALUMINUM
1.7U	MG/KG	ANTIMONY
7.7	MG/KG	ARSENIC
180	MG/KG	BARIUM
1.4	MG/KG	BERYLLIUM
0.94	MG/KG	CADMIUM
1100	MG/KG	CALCIUM
64	MG/KG	CHROMIUM
10U	MG/KG	COBALT
59	MG/KG	COPPER
49000	MG/KG	IRON
130	MG/KG	LEAD
2100	MG/KG	MAGNESIUM
390	MG/KG	MANGANESE
1.7J	MG/KG	TOTAL MERCURY
12U	MG/KG	NICKEL
2000J	MG/KG	POTASSIUM
1.2U	MG/KG	SELENIUM
0.37U	MG/KG	SILVER
74U	MG/KG	SODIUM
1.5U	MG/KG	THALLIUM
95	MG/KG	VANADIUM
330	MG/KG	ZINC
0.23U	MG/KG	CYANIDE
37	%	% MOISTURE

1-average value NA-not analyzed. NA1-interferences. J-estimated value. N-presumptive evidence of presence of material.
 2-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
 3-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

WETALS SAMPLE ANALYSIS

EPA - REGION IV SED, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1561 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Program: SF

Id/Station: EL012020 /

Media: SOIL

Conestee, SC

Case No: 28761

MD No: 0D22

D No: 0D22

Inorg Contractor: CHEMED

Org Contractor: MITKEM

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 11/29/2000 09:45

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
22000	MG/KG	ALUMINUM
1.3U	MG/KG	ANTIMONY
1.5U	MG/KG	ARSENIC
74	MG/KG	BARIUM
1.0	MG/KG	BERYLLIUM
0.10U	MG/KG	CADMIUM
80	MG/KG	CALCIUM
35	MG/KG	CHROMIUM
6.7U	MG/KG	COBALT
5.7	MG/KG	COPPER
10000	MG/KG	IRON
13	MG/KG	LEAD
2800	MG/KG	MAGNESIUM
60	MG/KG	MANGANESE
0.11UJ	MG/KG	TOTAL MERCURY
9.4U	MG/KG	NICKEL
1800J	MG/KG	POTASSIUM
0.91U	MG/KG	SELENIUM
0.14U	MG/KG	SILVER
56U	MG/KG	SODIUM
1.2U	MG/KG	THALLIUM
28	MG/KG	VANADIUM
45	MG/KG	ZINC
0.18U	MG/KG	CYANIDE
18	%	% MOISTURE

Y-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
L-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
X-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

INITIALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1562 FY 2001 Project: 01-0150

Produced by: Guthrie, Diane

Facility: Lake Conestee

Requestor:

Conestee, SC

Project Leader: BDICK

Program: SF

Beginning: 11/29/2000 12:00

Case No: 28761

Ending:

MD No: 0D17

Inorg Contractor: CHEMED

D No: 0D17

Org Contractor: MITKEM

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
18000	MG/KG	ALUMINUM
1.8U	MG/KG	ANTIMONY
6.5	MG/KG	ARSENIC
120	MG/KG	BARIUM
0.81	MG/KG	BERYLLIUM
2.5	MG/KG	CADMIUM
1000	MG/KG	CALCIUM
100	MG/KG	CHROMIUM
9.8U	MG/KG	COBALT
32	MG/KG	COPPER
25000	MG/KG	IRON
120	MG/KG	LEAD
2400	MG/KG	MAGNESIUM
350	MG/KG	MANGANESE
0.12UJ	MG/KG	TOTAL MERCURY
10	MG/KG	NICKEL
2000J	MG/KG	POTASSIUM
0.91U	MG/KG	SELENIUM
0.14U	MG/KG	SILVER
57U	MG/KG	SODIUM
1.2U	MG/KG	THALLIUM
50	MG/KG	VANADIUM
180	MG/KG	ZINC
0.18U	MG/KG	CYANIDE
19	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
 C-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
 R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

WETALS SAMPLE ANALYSIS

EPA - REGION IV SED, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1563 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Conestee, SC

Program: SF

Id/Station: DEL0348 /

Case No: 28761

Media: SOIL

MD No: 0D18

D No: 0D18

Inorg Contractor: CHEMED

Org Contractor: MITKEM

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 11/29/2000 12:00

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS UNITS ANALYTE

23000	MG/KG	ALUMINUM
3.8U	MG/KG	ANTIMONY
8.5	MG/KG	ARSENIC
250	MG/KG	BARIUM
1.1	MG/KG	BERYLLIUM
1.2	MG/KG	CADMIUM
1800	MG/KG	CALCIUM
1100	MG/KG	CHROMIUM
11U	MG/KG	COBALT
110	MG/KG	COPPER
36000	MG/KG	IRON
190	MG/KG	LEAD
3900	MG/KG	MAGNESIUM
350	MG/KG	MANGANESE
0.90J	MG/KG	TOTAL MERCURY
13U	MG/KG	NICKEL
3800J	MG/KG	POTASSIUM
1.4U	MG/KG	SELENIUM
3.3	MG/KG	SILVER
84U	MG/KG	SODIUM
1.7U	MG/KG	THALLIUM
68	MG/KG	VANADIUM
440	MG/KG	ZINC
0.26U	MG/KG	CYANIDE
45	%	% MOISTURE

-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
 -actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
 -qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

WILIAO SAMPLE ANALYSIS

EPA - REGION IV SED, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1564 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Program: SF

Id/Station: DEL03812 /

Media: SOIL

Conestee, SC

Case No: 28761

MD No: 0D23

D No: 0D23

Inorg Contractor: CHEMED

Org Contractor: MITKEM

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 11/29/2000 12:00

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
30000	MG/KG	ALUMINUM
11U	MG/KG	ANTIMONY
11	MG/KG	ARSENIC
290	MG/KG	BARIUM
1.2	MG/KG	BERYLLIUM
2.8	MG/KG	CADMIUM
2500	MG/KG	CALCIUM
1800	MG/KG	CHROMIUM
12U	MG/KG	COBALT
240	MG/KG	COPPER
45000	MG/KG	IRON
370	MG/KG	LEAD
2600	MG/KG	MAGNESIUM
460	MG/KG	MANGANESE
1.3U	MG/KG	TOTAL MERCURY
16	MG/KG	NICKEL
2700U	MG/KG	POTASSIUM
1.5U	MG/KG	SELENIUM
6.9	MG/KG	SILVER
160	MG/KG	SODIUM
1.9U	MG/KG	THALLIUM
82	MG/KG	VANADIUM
730	MG/KG	ZINC
0.29U	MG/KG	CYANIDE
49	%	% MOISTURE

-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.

-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.

-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

Sample 1565 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Conestee, SC

Program: SF

Id/Station: EL031216 /

Media: SOIL

Case No: 28761

MD No: 0D24

D No: 0D24

Inorg Contractor: CHEMED

Org Contractor: MITKEM

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 11/29/2000 12:00

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
27000	MG/KG	ALUMINUM
1.3U	MG/KG	ANTIMONY
2.3	MG/KG	ARSENIC
42	MG/KG	BARIUM
0.31	MG/KG	BERYLLIUM
0.10U	MG/KG	CADMIUM
190	MG/KG	CALCIUM
31	MG/KG	CHROMIUM
4.2U	MG/KG	COBALT
12	MG/KG	COPPER
32000	MG/KG	IRON
16	MG/KG	LEAD
800	MG/KG	MAGNESIUM
220	MG/KG	MANGANESE
0.12UJ	MG/KG	TOTAL MERCURY
6.1U	MG/KG	NICKEL
900J	MG/KG	POTASSIUM
0.92U	MG/KG	SELENIUM
0.14U	MG/KG	SILVER
57U	MG/KG	SODIUM
2.9	MG/KG	THALLIUM
63	MG/KG	VANADIUM
17	MG/KG	ZINC
0.18U	MG/KG	CYANIDE
18	%	% MOISTURE

METALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1566 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Program: SF

Id/Station: LCR2 /

Media: WATER

Conestee, SC

Case No: 28761

MD No: 0D25

D No: 0D25

Inorg Contractor: CHEMED

Org Contractor: MITKEM

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 11/29/2000 03:30

Ending:

RESULTS	UNITS	ANALYTE
98UJ	UG/L	ALUMINUM
5.3U	UG/L	ANTIMONY
3.7U	UG/L	ARSENIC
0.43U	UG/L	BARIUM
0.10U	UG/L	BERYLLIUM
0.40U	UG/L	CADMIUM
82U	UG/L	CALCIUM
0.90U	UG/L	CHROMIUM
0.50U	UG/L	COBALT
0.96U	UG/L	COPPER
92U	UG/L	IRON
1.4U	UG/L	LEAD
9.6U	UG/L	MAGNESIUM
0.40U	UG/L	MANGANESE
0.20U	UG/L	TOTAL MERCURY
1.1U	UG/L	NICKEL
36U	UG/L	POTASSIUM
3.8U	UG/L	SELENIUM
0.60UJ	UG/L	SILVER
300	UG/L	SODIUM
4.8UJ	UG/L	THALLIUM
0.78U	UG/L	VANADIUM
20U	UG/L	ZINC
10U	UG/L	CYANIDE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
 X-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
 R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

WETALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1567 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Program: SF

Id/Station: LCSED13 /

Media: SOIL

Conestee, SC

Case No: 28761

MD No: 0D02

D No: 0D02

Inorg Contractor: CHEMED

Org Contractor: MITKEM

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 11/28/2000 08:45

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
30000	MG/KG	ALUMINUM
1.7U	MG/KG	ANTIMONY
5.9	MG/KG	ARSENIC
400	MG/KG	BARIUM
1.3	MG/KG	BERYLLIUM
1.4	MG/KG	CADMIUM
610	MG/KG	CALCIUM
580	MG/KG	CHROMIUM
8.6	MG/KG	COBALT
95	MG/KG	COPPER
41000	MG/KG	IRON
220	MG/KG	LEAD
3500	MG/KG	MAGNESIUM
170	MG/KG	MANGANESE
0.32J	MG/KG	TOTAL MERCURY
11J	MG/KG	NICKEL
3700J	MG/KG	POTASSIUM
1.4U	MG/KG	SELENIUM
1.2	MG/KG	SILVER
74U	MG/KG	SODIUM
1.5U	MG/KG	THALLIUM
86	MG/KG	VANADIUM
120	MG/KG	ZINC
0.29U	MG/KG	CYANIDE
39	%	% MOISTURE

NA-average value. NA-not analyzed. NA1-interferences. J-estimated value. N-presumptive evidence of presence of material. L-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit. qc-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

WIE 1 ALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1568 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Program: SF

Id/Station: LCSED14 /

Media: SOIL

Conestee, SC

Case No: 28761

MD No: 0D03

D No: 0D03

Inorg Contractor: CHEMED

Org Contractor: MITKEM

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 11/28/2000 09:00

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
25000	MG/KG	ALUMINUM
9.4U	MG/KG	ANTIMONY
7.8	MG/KG	ARSENIC
180	MG/KG	BARIUM
1.1	MG/KG	BERYLLIUM
2.1	MG/KG	CADMIUM
840	MG/KG	CALCIUM
100	MG/KG	CHROMIUM
11	MG/KG	COBALT
85	MG/KG	COPPER
45000	MG/KG	IRON
170	MG/KG	LEAD
2100	MG/KG	MAGNESIUM
260	MG/KG	MANGANESE
0.31J	MG/KG	TOTAL MERCURY
12J	MG/KG	NICKEL
2000J	MG/KG	POTASSIUM
1.3U	MG/KG	SELENIUM
1.6	MG/KG	SILVER
82U	MG/KG	SODIUM
1.7U	MG/KG	THALLIUM
78	MG/KG	VANADIUM
160	MG/KG	ZINC
0.57U	MG/KG	CYANIDE
44	%	% MOISTURE

NA=average value NA-not analyzed. NAI=interferences. J=estimated value. N=presumptive evidence of presence of material.
L=actual value is known to be less than value given. L=actual value is known to be greater than value given. U=material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

METALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1569 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Conestee, SC

Program: SF

Id/Station: LCSED15 /

Media: SOIL

Case No: 28761

MD No: 0D04

D No: 0D04

Inorg Contractor: CHEMED

Org Contractor: MITKEM

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 11/28/2000 10:00

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
29000	MG/KG	ALUMINUM
6.5U	MG/KG	ANTIMONY
8.2	MG/KG	ARSENIC
160	MG/KG	BARIUM
1.2	MG/KG	BERYLLIUM
5.9	MG/KG	CADMIUM
770	MG/KG	CALCIUM
150	MG/KG	CHROMIUM
9.6	MG/KG	COBALT
79	MG/KG	COPPER
40000	MG/KG	IRON
170	MG/KG	LEAD
2000	MG/KG	MAGNESIUM
160	MG/KG	MANGANESE
0.22J	MG/KG	TOTAL MERCURY
13J	MG/KG	NICKEL
1900J	MG/KG	POTASSIUM
1.3U	MG/KG	SELENIUM
1.6	MG/KG	SILVER
82U	MG/KG	SODIUM
1.7U	MG/KG	THALLIUM
80	MG/KG	VANADIUM
280	MG/KG	ZINC
0.26U	MG/KG	CYANIDE
42	%	% MOISTURE

-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.

-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.

-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

METALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1570 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Conestee, SC

Program: SF

Id/Station: LCS16 /

Media: SOIL

Case No: 28761

MD No: 0D05

D No: 0D05

Inorg Contractor: CHEMED

Org Contractor: MITKEM

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 11/28/2000 10:20

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
35000	MG/KG	ALUMINUM
6.0U	MG/KG	ANTIMONY
7.7	MG/KG	ARSENIC
240	MG/KG	BARIUM
1.5	MG/KG	BERYLLIUM
4.7	MG/KG	CADMIUM
740	MG/KG	CALCIUM
300	MG/KG	CHROMIUM
9.5	MG/KG	COBALT
85	MG/KG	COPPER
45000	MG/KG	IRON
260	MG/KG	LEAD
2900	MG/KG	MAGNESIUM
190	MG/KG	MANGANESE
0.39J	MG/KG	TOTAL MERCURY
14J	MG/KG	NICKEL
3000J	MG/KG	POTASSIUM
1.4U	MG/KG	SELENIUM
1.8	MG/KG	SILVER
85U	MG/KG	SODIUM
1.7U	MG/KG	THALLIUM
100	MG/KG	VANADIUM
200	MG/KG	ZINC
0.27U	MG/KG	CYANIDE
46	%	% MOISTURE

L-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
L-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
L-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

WILFALD SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1571 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Program: SF

Id/Station: LCSED19 /

Media: SOIL

Conestee, SC

Case No: 28761

MD No: 0D06

D No: 0D06

Inorg Contractor: CHEMED

Org Contractor: MITKEM

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 11/28/2000

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
31000	MG/KG	ALUMINUM
12U	MG/KG	ANTIMONY
11	MG/KG	ARSENIC
160	MG/KG	BARIUM
1.3	MG/KG	BERYLLIUM
10	MG/KG	CADMIUM
1200	MG/KG	CALCIUM
120	MG/KG	CHROMIUM
13	MG/KG	COBALT
86	MG/KG	COPPER
51000	MG/KG	IRON
130	MG/KG	LEAD
1800	MG/KG	MAGNESIUM
260	MG/KG	MANGANESE
0.32J	MG/KG	TOTAL MERCURY
17J	MG/KG	NICKEL
1900J	MG/KG	POTASSIUM
1.8U	MG/KG	SELENIUM
2.2	MG/KG	SILVER
120	MG/KG	SODIUM
2.2U	MG/KG	THALLIUM
97	MG/KG	VANADIUM
450	MG/KG	ZINC
0.34U	MG/KG	CYANIDE
57	%	% MOISTURE

A-average value. NA-not analyzed. NA1-interferences. J-estimated value. N-presumptive evidence of presence of material.
L-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

WETALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1572 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Program: SF

Id/Station: LCS18 /

Media: SOIL

Conestee, SC

Case No: 28761

MD No: 0D07

D No: 0D07

Inorg Contractor: CHEMED

Org Contractor: MITKEM

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 11/28/2000

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
48000	MG/KG	ALUMINUM
2.3U	MG/KG	ANTIMONY
12	MG/KG	ARSENIC
230	MG/KG	BARIUM
1.6	MG/KG	BERYLLIUM
3.0	MG/KG	CADMIUM
910	MG/KG	CALCIUM
390	MG/KG	CHROMIUM
9.5	MG/KG	COBALT
98	MG/KG	COPPER
47000	MG/KG	IRON
290	MG/KG	LEAD
2400	MG/KG	MAGNESIUM
190	MG/KG	MANGANESE
0.39J	MG/KG	TOTAL MERCURY
16J	MG/KG	NICKEL
2600J	MG/KG	POTASSIUM
1.6U	MG/KG	SELENIUM
3.1	MG/KG	SILVER
100U	MG/KG	SODIUM
2.1U	MG/KG	THALLIUM
110	MG/KG	VANADIUM
190	MG/KG	ZINC
0.31U	MG/KG	CYANIDE
54	%	% MOISTURE

NA=average value. NA=not analyzed. NA=interferences. J=estimated value. N=presumptive evidence of presence of material.
L=actual value is known to be less than value given. L=actual value is known to be greater than value given. U=material was analyzed for but not detected. the number is the minimum quantitation limit.
Q=qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

WETALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1573 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Program: SF

Id/Station: LCS17 /

Media: SOIL

Conestee, SC

Case No: 28761

MD No: 0D08

D No: 0D08

Inorg Contractor: CHEMED

Org Contractor: MITKEM

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 11/28/2000 13:50

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
35000	MG/KG	ALUMINUM
16U	MG/KG	ANTIMONY
11	MG/KG	ARSENIC
180	MG/KG	BARIUM
1.6	MG/KG	BERYLLIUM
5.2	MG/KG	CADMIUM
1100	MG/KG	CALCIUM
110	MG/KG	CHROMIUM
17U	MG/KG	COBALT
76	MG/KG	COPPER
58000	MG/KG	IRON
130	MG/KG	LEAD
2800	MG/KG	MAGNESIUM
360	MG/KG	MANGANESE
0.28J	MG/KG	TOTAL MERCURY
19U	MG/KG	NICKEL
2800J	MG/KG	POTASSIUM
1.8U	MG/KG	SELENIUM
0.77U	MG/KG	SILVER
120U	MG/KG	SODIUM
2.3U	MG/KG	THALLIUM
110	MG/KG	VANADIUM
390	MG/KG	ZINC
0.35U	MG/KG	CYANIDE
59	%	% MOISTURE

NA-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.

L-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.

R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

INITIAL SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1574 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Program: SF

Id/Station: LCSED17D /

Media: SOIL

Conestee, SC

Case No: 28761

MD No: 0D09

D No: 0D09

Inorg Contractor: CHEMED

Org Contractor: MITKEM

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 11/28/2000 13:50

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
32000	MG/KG	ALUMINUM
15U	MG/KG	ANTIMONY
11	MG/KG	ARSENIC
230	MG/KG	BARIUM
1.5	MG/KG	BERYLLIUM
6.7	MG/KG	CADMIUM
910	MG/KG	CALCIUM
290	MG/KG	CHROMIUM
15	MG/KG	COBALT
94	MG/KG	COPPER
48000	MG/KG	IRON
190	MG/KG	LEAD
2700	MG/KG	MAGNESIUM
270	MG/KG	MANGANESE
0.67J	MG/KG	TOTAL MERCURY
17U	MG/KG	NICKEL
2600J	MG/KG	POTASSIUM
1.8U	MG/KG	SELENIUM
2.0	MG/KG	SILVER
110U	MG/KG	SODIUM
2.3U	MG/KG	THALLIUM
100	MG/KG	VANADIUM
350	MG/KG	ZINC
0.43U	MG/KG	CYANIDE
58	%	% MOISTURE

average value. NA-not analyzed. NA=interferences. J=estimated value. N=presumptive evidence of presence of material. actual value is known to be less than value given. L=actual value is known to be greater than value given. U=material was analyzed for but not detected. the number is the minimum quantitation limit. qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

WILFALD SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1575 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Program: SF

Id/Station: LCSW18 /

Media: SURFACE WATER

Conestee, SC

Case No: 28761

MD No: 0D10

D No: 0D10

Inorg Contractor: CHEMED

Org Contractor: MITKEM

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 11/28/2000 13:45

Ending:

RESULTS	UNITS	ANALYTE
1400J	UG/L	ALUMINUM
5.3U	UG/L	ANTIMONY
3.7U	UG/L	ARSENIC
60	UG/L	BARIUM
0.91	UG/L	BERYLLIUM
46	UG/L	CADMIUM
41000	UG/L	CALCIUM
2.6U	UG/L	CHROMIUM
110	UG/L	COBALT
33	UG/L	COPPER
9500	UG/L	IRON
3.6	UG/L	LEAD
5700	UG/L	MAGNESIUM
7900	UG/L	MANGANESE
0.20U	UG/L	TOTAL MERCURY
49	UG/L	NICKEL
13000	UG/L	POTASSIUM
3.8U	UG/L	SELENIUM
0.90UJ	UG/L	SILVER
31000	UG/L	SODIUM
12J	UG/L	THALLIUM
0.60U	UG/L	VANADIUM
3100	UG/L	ZINC
10U	UG/L	CYANIDE

-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

METALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample	1576	FY 2001	Project: 01-0150	Produced by: Guthrie, Diane
METALS SCAN				Requestor:
Facility: Lake Conestee			Conestee, SC	Project Leader: BDICK
Program: SF				Beginning: 11/28/2000 15:20
Id/Station: LCSED20 /			Case No: 28761	Ending:
Media: SOIL			MD No: 0D11	
			D No: 0D11	Inorg Contractor: CHEMED
				Org Contractor: MITKEM

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
28000	MG/KG	ALUMINUM
3.4U	MG/KG	ANTIMONY
6.5	MG/KG	ARSENIC
170	MG/KG	BARIUM
1.1	MG/KG	BERYLLIUM
0.87	MG/KG	CADMIUM
1000	MG/KG	CALCIUM
88	MG/KG	CHROMIUM
15U	MG/KG	COBALT
42	MG/KG	COPPER
41000	MG/KG	IRON
76	MG/KG	LEAD
4000	MG/KG	MAGNESIUM
370	MG/KG	MANGANESE
0.17UJ	MG/KG	TOTAL MERCURY
17	MG/KG	NICKEL
4300J	MG/KG	POTASSIUM
1.3U	MG/KG	SELENIUM
0.22U	MG/KG	SILVER
81U	MG/KG	SODIUM
1.6U	MG/KG	THALLIUM
75	MG/KG	VANADIUM
200	MG/KG	ZINC
0.62U	MG/KG	CYANIDE
42	%	% MOISTURE

U-average value. NA-not analyzed. NA1-interferences. J-estimated value. N-presumptive evidence of presence of material.
 U-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
 U-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

INITIALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1577 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Program: SF

Id/Station: LCSSED21 /

Media: SOIL

Conestee, SC

Case No: 28761

MD No: 0D12

D No: 0D12

Inorg Contractor: CHEMED

Org Contractor: MITKEM

Produced by: Guthrie, Diane
Requestor:

Project Leader: BDICK

Beginning: 11/28/2000 16:20

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
22000	MG/KG	ALUMINUM
8.2U	MG/KG	ANTIMONY
7.4	MG/KG	ARSENIC
160	MG/KG	BARIUM
1.3	MG/KG	BERYLLIUM
1.7	MG/KG	CADMIUM
950	MG/KG	CALCIUM
72	MG/KG	CHROMIUM
18U	MG/KG	COBALT
55	MG/KG	COPPER
49000	MG/KG	IRON
100	MG/KG	LEAD
2400	MG/KG	MAGNESIUM
390	MG/KG	MANGANESE
0.34UJ	MG/KG	TOTAL MERCURY
14U	MG/KG	NICKEL
2300J	MG/KG	POTASSIUM
2.6U	MG/KG	SELENIUM
0.41U	MG/KG	SILVER
160U	MG/KG	SODIUM
3.3U	MG/KG	THALLIUM
96	MG/KG	VANADIUM
280	MG/KG	ZINC
0.51U	MG/KG	CYANIDE
72	%	% MOISTURE

-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.

-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.

-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

METALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1578 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Program: SF

Id/Station: LCSW20 /

Media: SURFACE WATER

Conestee, SC

Case No: 28761

MD No: 0D13

D No: 0D13

Inorg Contractor: CHEMED

Org Contractor: MITKEM

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 11/28/2000 15:36

Ending:

RESULTS UNITS ANALYTE

4900J	UG/L	ALUMINUM
5.3U	UG/L	ANTIMONY
3.7U	UG/L	ARSENIC
240	UG/L	BARIUM
0.28	UG/L	BERYLLIUM
0.40U	UG/L	CADMIUM
22000	UG/L	CALCIUM
20	UG/L	CHROMIUM
18U	UG/L	COBALT
13U	UG/L	COPPER
88000	UG/L	IRON
25	UG/L	LEAD
4600	UG/L	MAGNESIUM
2300	UG/L	MANGANESE
0.20U	UG/L	TOTAL MERCURY
7.9U	UG/L	NICKEL
8500	UG/L	POTASSIUM
3.8U	UG/L	SELENIUM
0.60UJ	UG/L	SILVER
20000	UG/L	SODIUM
10J	UG/L	THALLIUM
13U	UG/L	VANADIUM
92U	UG/L	ZINC
10U	UG/L	CYANIDE

METALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1579 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Program: SF

Id/Station: LCSW21 /

Media: SURFACE WATER

Conestee, SC

Case No: 28761

MD No: 0D14

D No: 0D14

Inorg Contractor: CHEMED

Org Contractor: MITKEM

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 11/28/2000 16:30

Ending:

RESULTS UNITS ANALYTE

1200J	UG/L	ALUMINUM
5.3U	UG/L	ANTIMONY
3.7U	UG/L	ARSENIC
65	UG/L	BARIUM
0.10	UG/L	BERYLLIUM
0.40U	UG/L	CADMIUM
7400	UG/L	CALCIUM
17	UG/L	CHROMIUM
4.1U	UG/L	COBALT
8.0U	UG/L	COPPER
5100	UG/L	IRON
9.9	UG/L	LEAD
1600	UG/L	MAGNESIUM
750	UG/L	MANGANESE
0.20U	UG/L	TOTAL MERCURY
2.1	UG/L	NICKEL
5700	UG/L	POTASSIUM
3.8U	UG/L	SELENIUM
0.60UJ	UG/L	SILVER
6900	UG/L	SODIUM
5.9UJ	UG/L	THALLIUM
5.8U	UG/L	VANADIUM
53U	UG/L	ZINC
10U	UG/L	CYANIDE

METALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1580 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Program: SF

Id/Station: LCSSED25 /

Media: SOIL

Conestee, SC

Case No: 28761

MD No: 0DE0

D No: 0DE0

Inorg Contractor: CHEMED

Org Contractor: MITKEM

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 12/01/2000 10:25

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
18000	MG/KG	ALUMINUM
3.3U	MG/KG	ANTIMONY
12J	MG/KG	ARSENIC
120	MG/KG	BARIUM
1.1	MG/KG	BERYLLIUM
1.4U	MG/KG	CADMIUM
810	MG/KG	CALCIUM
68	MG/KG	CHROMIUM
12U	MG/KG	COBALT
26	MG/KG	COPPER
71000	MG/KG	IRON
70	MG/KG	LEAD
1900	MG/KG	MAGNESIUM
580	MG/KG	MANGANESE
1.7J	MG/KG	TOTAL MERCURY
9.8	MG/KG	NICKEL
1600J	MG/KG	POTASSIUM
2.3U	MG/KG	SELENIUM
0.37UJ	MG/KG	SILVER
140U	MG/KG	SODIUM
6.2J	MG/KG	THALLIUM
59	MG/KG	VANADIUM
190	MG/KG	ZINC
0.45U	MG/KG	CYANIDE
68	%	% MOISTURE

average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
 actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
 qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

ETALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1581 FY 2001 Project: 01-0150

Produced by: Guthrie, Diane

METALS SCAN

Requestor:

Facility: Lake Conestee

Project Leader: BDICK

Program: SF

Beginning: 12/01/2000 10:25

Id/Station: LCSW25 /

Case No: 28761

MD No: 0DE1

D No: 0DE1

Inorg Contractor: CHEMED

Org Contractor: MITKEM

Media: SURFACE WATER

RESULTS UNITS ANALYTE

79UJ	UG/L	ALUMINUM
5.3U	UG/L	ANTIMONY
3.7U	UG/L	ARSENIC
25J	UG/L	BARIIUM
0.10U	UG/L	BERYLLIUM
0.40U	UG/L	CADMIUM
5200	UG/L	CALCIUM
0.50U	UG/L	CHROMIUM
0.50U	UG/L	COBALT
1.8U	UG/L	COPPER
2600J	UG/L	IRON
1.4U	UG/L	LEAD
1400	UG/L	MAGNESIUM
100J	UG/L	MANGANESE
0.20U	UG/L	TOTAL MERCURY
0.70U	UG/L	NICKEL
2200J	UG/L	POTASSIUM
3.8UJ	UG/L	SELENIUM
0.60U	UG/L	SILVER
4000	UG/L	SODIUM
5.0UJ	UG/L	THALLIUM
0.60U	UG/L	VANADIUM
16U	UG/L	ZINC
10U	UG/L	CYANIDE

average value. NA-not analyzed. NA1-interferences. J-estimated value. N-presumptive evidence of presence of material.

-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.

-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

METALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample	1582	FY 2001	Project: 01-0150	Produced by: Guthrie, Diane
METALS SCAN				Requestor:
Facility: Lake Conestee				Project Leader: BDICK
Program: SF				Beginning: 12/01/2000 11:00
Id/Station: LCS26 /				Ending:
Media: SOIL				Inorg Contractor: CHEMED
				Org Contractor: MITKEM
				Case No: 28761
				MD No: 0DE2
				D No: 0DE2

RESULTS			UNITS	ANALYTE	DATA REPORTED ON DRY WEIGHT BASIS
23000			MG/KG	ALUMINUM	
5.5U			MG/KG	ANTIMONY	
6.6			MG/KG	ARSENIC	
140			MG/KG	BARIUM	
0.96			MG/KG	BERYLLIUM	
2.0			MG/KG	CADMIUM	
560			MG/KG	CALCIUM	
340			MG/KG	CHROMIUM	
10U			MG/KG	COBALT	
41			MG/KG	COPPER	
30000			MG/KG	IRON	
130			MG/KG	LEAD	
2300			MG/KG	MAGNESIUM	
200			MG/KG	MANGANESE	
0.27J			MG/KG	TOTAL MERCURY	
11			MG/KG	NICKEL	
1900J			MG/KG	POTASSIUM	
1.4U			MG/KG	SELENIUM	
0.47UJ			MG/KG	SILVER	
84U			MG/KG	SODIUM	
2.2U			MG/KG	THALLIUM	
59			MG/KG	VANADIUM	
190			MG/KG	ZINC	
0.26U			MG/KG	CYANIDE	
44			%	% MOISTURE	

average value. NA-not analyzed. NA1-interferences. J-estimated value. N-presumptive evidence of presence of material.
actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

METALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1583 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Program: SF

Id/Station: LCSW26 /

Media: SURFACE WATER

Conestee, SC

Case No: 28761

MD No: 0DE3

D No: 0DE3

Inorg Contractor: CHEMED

Org Contractor: MITKEM

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 12/01/2000 11:00

Ending:

RESULTS UNITS ANALYTE

100UJ	UG/L	ALUMINUM
5.3U	UG/L	ANTIMONY
3.7U	UG/L	ARSENIC
20J	UG/L	BARIUM
0.10U	UG/L	BERYLLIUM
0.40U	UG/L	CADMIUM
4600	UG/L	CALCIUM
1.3U	UG/L	CHROMIUM
0.50U	UG/L	COBALT
1.8	UG/L	COPPER
2100J	UG/L	IRON
1.4U	UG/L	LEAD
1300	UG/L	MAGNESIUM
88J	UG/L	MANGANESE
0.20U	UG/L	TOTAL MERCURY
0.70U	UG/L	NICKEL
2400J	UG/L	POTASSIUM
3.8UJ	UG/L	SELENIUM
0.60U	UG/L	SILVER
3700	UG/L	SODIUM
6.9UJ	UG/L	THALLIUM
0.60U	UG/L	VANADIUM
19U	UG/L	ZINC
10U	UG/L	CYANIDE

METALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample	1584	FY 2001	Project: 01-0150	Produced by: Guthrie, Diane
METALS SCAN				Requestor:
Facility: Lake Conestee			Conestee, SC	Project Leader: BDICK
Program: SF				Beginning: 12/01/2000 12:00
Id/Station: LCSSED27 /				Ending:
Media: SOIL				
			Case No: 28761	
			MD No: 0DE4	
			D No: 0DE4	
			Inorg Contractor: CHEMED	
			Org Contractor: MITKEM	

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
16000	MG/KG	ALUMINUM
2.7U	MG/KG	ANTIMONY
4.9J	MG/KG	ARSENIC
96	MG/KG	BARIUM
0.64	MG/KG	BERYLLIUM
1.2U	MG/KG	CADMIUM
310	MG/KG	CALCIUM
79	MG/KG	CHROMIUM
6.5U	MG/KG	COBALT
22	MG/KG	COPPER
22000	MG/KG	IRON
47	MG/KG	LEAD
2200	MG/KG	MAGNESIUM
120	MG/KG	MANGANESE
0.65J	MG/KG	TOTAL MERCURY
7.3	MG/KG	NICKEL
2000J	MG/KG	POTASSIUM
1.2U	MG/KG	SELENIUM
0.19UJ	MG/KG	SILVER
73U	MG/KG	SODIUM
3.2	MG/KG	THALLIUM
42	MG/KG	VANADIUM
120	MG/KG	ZINC
0.23U	MG/KG	CYANIDE
37	%	% MOISTURE

average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
 actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
 qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

METALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1585 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Program: SF

Id/Station: LCSW27 /

Media: SURFACE WATER

Conestee, SC

Case No: 28761

MD No: 0DE5

D No: 0DE5

Inorg Contractor: CHEMED

Org Contractor: MITKEM

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 12/01/2000 12:00

Ending:

RESULTS UNITS ANALYTE

130UJ	UG/L	ALUMINUM
5.3U	UG/L	ANTIMONY
3.7U	UG/L	ARSENIC
21J	UG/L	BARIUM
0.10U	UG/L	BERYLLIUM
0.40U	UG/L	CADMIUM
4400	UG/L	CALCIUM
0.76U	UG/L	CHROMIUM
1.2U	UG/L	COBALT
1.8U	UG/L	COPPER
2100J	UG/L	IRON
1.4U	UG/L	LEAD
1300	UG/L	MAGNESIUM
83J	UG/L	MANGANESE
0.20U	UG/L	TOTAL MERCURY
0.70U	UG/L	NICKEL
2600J	UG/L	POTASSIUM
3.8UJ	UG/L	SELENIUM
0.60U	UG/L	SILVER
3800	UG/L	SODIUM
4.8UJ	UG/L	THALLIUM
0.60U	UG/L	VANADIUM
24	UG/L	ZINC
10U	UG/L	CYANIDE

average value. NA-not analyzed. NA1-interferences. J-estimated value. N-presumptive evidence of presence of material.

actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.

-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

METALS SAMPLE ANALYSIS

EPA - REGION IV SED, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1586 FY 2001 Project: 01-0150

Produced by: Guthrie, Diane
Requestor:
Project Leader: BDICK
Beginning: 12/01/2000 12:40
Ending:

METALS SCAN

Facility: Lake Conestee
Program: SF
Id/Station: LCS2828 /
Media: SOIL
Conestee, SC
Case No: 28761
MD No: 0DE6
D No: 0DE6
Inorg Contractor: CHEMED
Org Contractor: MITKEM

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
6900	MG/KG	ALUMINUM
1.5U	MG/KG	ANTIMONY
2.9	MG/KG	ARSENIC
58	MG/KG	BARIUM
0.30	MG/KG	BERYLLIUM
0.47U	MG/KG	CADMIUM
270	MG/KG	CALCIUM
71	MG/KG	CHROMIUM
3.7U	MG/KG	COBALT
11	MG/KG	COPPER
9100	MG/KG	IRON
26	MG/KG	LEAD
1400	MG/KG	MAGNESIUM
77	MG/KG	MANGANESE
0.14UJ	MG/KG	TOTAL MERCURY
3.7	MG/KG	NICKEL
1400J	MG/KG	POTASSIUM
1.0U	MG/KG	SELENIUM
0.23UJ	MG/KG	SILVER
65U	MG/KG	SODIUM
1.5U	MG/KG	THALLIUM
19	MG/KG	VANADIUM
61	MG/KG	ZINC
0.20U	MG/KG	CYANIDE
27	%	% MOISTURE

Average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
Actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

METALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1587 FY 2001 Project: 01-0150

Produced by: Guthrie, Diane
Requestor:
Project Leader: BDICK
Beginning: 12/01/2000 12:40
Ending:

METALS SCAN

Facility: Lake Conestee
Program: SF
Id/Station: LCSED28D /
Media: SOIL
Conestee, SC
Case No: 28761
MD No: 0DE7
D No: 0DE7
Inorg Contractor: CHEMED
Org Contractor: MITKEM

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
2800	MG/KG	ALUMINUM
1.4U	MG/KG	ANTIMONY
0.99U	MG/KG	ARSENIC
25	MG/KG	BARIUM
0.16	MG/KG	BERYLLIUM
0.11U	MG/KG	CADMIUM
190	MG/KG	CALCIUM
52	MG/KG	CHROMIUM
1.9U	MG/KG	COBALT
6.8	MG/KG	COPPER
4700	MG/KG	IRON
14	MG/KG	LEAD
560	MG/KG	MAGNESIUM
40	MG/KG	MANGANESE
0.20J	MG/KG	TOTAL MERCURY
1.9	MG/KG	NICKEL
490J	MG/KG	POTASSIUM
1.0U	MG/KG	SELENIUM
0.16UJ	MG/KG	SILVER
63U	MG/KG	SODIUM
1.3U	MG/KG	THALLIUM
10U	MG/KG	VANADIUM
34	MG/KG	ZINC
0.20U	MG/KG	CYANIDE
28	%	% MOISTURE

average value. NA=not analyzed. NA=interferences. J=estimated value. N=presumptive evidence of presence of material.
actual value is known to be less than value given. L=actual value is known to be greater than value given. U=material was analyzed for but not detected. the number is the minimum quantitation limit.
-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

METALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1588 FY 2001 Project: 01-0150

Produced by: Guthrie, Diane

METALS SCAN

Requestor:

Facility: Lake Conestee

Project Leader: BDICK

Program: SF

Beginning: 12/01/2000 12:40

Id/Station: LCSW28 /

Case No: 28761

MD No: 0DE8

Media: SURFACE WATER

Inorg Contractor: CHEM

Org Contractor: MITKEM

RESULTS	UNITS	ANALYTE
130UJ	UG/L	ALUMINUM
5.3U	UG/L	ANTIMONY
3.7U	UG/L	ARSENIC
22J	UG/L	BARIUM
0.10U	UG/L	BERYLLIUM
0.40U	UG/L	CADMIUM
4300	UG/L	CALCIUM
0.55U	UG/L	CHROMIUM
0.86U	UG/L	COBALT
1.7U	UG/L	COPPER
2200J	UG/L	IRON
1.4U	UG/L	LEAD
1200	UG/L	MAGNESIUM
100J	UG/L	MANGANESE
0.20U	UG/L	TOTAL MERCURY
0.70U	UG/L	NICKEL
2600J	UG/L	POTASSIUM
3.8UJ	UG/L	SELENIUM
0.94U	UG/L	SILVER
3600	UG/L	SODIUM
4.8UJ	UG/L	THALLIUM
1.0U	UG/L	VANADIUM
16U	UG/L	ZINC
10U	UG/L	CYANIDE

METALS SAMPLE ANALYSIS

EPA - REGION IV SED, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1589 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Program: SF

Id/Station: LCS29 /

Media: SOIL

Conestee, SC

Case No: 28761

MD No: 0DE9

D No: 0DE9

Inorg Contractor: CHEM

Org Contractor: MITKEM

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 12/01/2000 13:54

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
32000	MG/KG	ALUMINUM
3.3U	MG/KG	ANTIMONY
7.0	MG/KG	ARSENIC
180	MG/KG	BARIUM
1.4	MG/KG	BERYLLIUM
1.3U	MG/KG	CADMIUM
690	MG/KG	CALCIUM
480	MG/KG	CHROMIUM
9.5U	MG/KG	COBALT
78	MG/KG	COPPER
40000	MG/KG	IRON
160	MG/KG	LEAD
2100	MG/KG	MAGNESIUM
250	MG/KG	MANGANESE
1.4J	MG/KG	TOTAL MERCURY
10	MG/KG	NICKEL
2000J	MG/KG	POTASSIUM
1.4U	MG/KG	SELENIUM
1.0UJ	MG/KG	SILVER
87U	MG/KG	SODIUM
1.8U	MG/KG	THALLIUM
90	MG/KG	VANADIUM
180	MG/KG	ZINC
0.27U	MG/KG	CYANIDE
46	%	% MOISTURE

average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
 actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
 qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

METALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1590 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Program: SF

Id/Station: LCSW29 /

Media: SURFACE WATER

Conestee, SC

Case No: 28761

MD No: 0DF0

D No: 0DF0

Inorg Contractor: CHEM

Org Contractor: MITKEM

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 12/01/2000 13:54

Ending:

RESULTS UNITS

ANALYTE

220UJ	UG/L	ALUMINUM
5.3U	UG/L	ANTIMONY
4.8U	UG/L	ARSENIC
20J	UG/L	BARIUM
0.10U	UG/L	BERYLLIUM
0.40U	UG/L	CADMIUM
4100	UG/L	CALCIUM
1.4U	UG/L	CHROMIUM
0.50U	UG/L	COBALT
2.0U	UG/L	COPPER
1800J	UG/L	IRON
1.4U	UG/L	LEAD
1200	UG/L	MAGNESIUM
30J	UG/L	MANGANESE
0.61	UG/L	TOTAL MERCURY
0.70U	UG/L	NICKEL
2800J	UG/L	POTASSIUM
3.8UJ	UG/L	SELENIUM
0.60U	UG/L	SILVER
3500	UG/L	SODIUM
5.0UJ	UG/L	THALLIUM
1.4U	UG/L	VANADIUM
26	UG/L	ZINC
10U	UG/L	CYANIDE

verage value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
ctual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
c indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

METALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1591 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Program: SF

Id/Station: LCRW3 /

Media: WATER

Conestee, SC

Case No: 28761

MD No: 0DF1

D No: 0DF1

Inorg Contractor: CHEM

Org Contractor: MITKEM

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 12/01/2000 16:00

Ending:

RESULTS UNITS ANALYTE

47UJ	UG/L	ALUMINUM
5.3U	UG/L	ANTIMONY
3.7U	UG/L	ARSENIC
0.20UJ	UG/L	BARIUM
0.10U	UG/L	BERYLLIUM
0.40U	UG/L	CADMIUM
120U	UG/L	CALCIUM
0.50U	UG/L	CHROMIUM
0.50U	UG/L	COBALT
0.75U	UG/L	COPPER
61UJ	UG/L	IRON
1.4U	UG/L	LEAD
8.5U	UG/L	MAGNESIUM
0.45UJ	UG/L	MANGANESE
0.20U	UG/L	TOTAL MERCURY
0.70U	UG/L	NICKEL
21UJ	UG/L	POTASSIUM
3.8UJ	UG/L	SELENIUM
0.60U	UG/L	SILVER
240U	UG/L	SODIUM
4.8UJ	UG/L	THALLIUM
0.60U	UG/L	VANADIUM
30	UG/L	ZINC
10U	UG/L	CYANIDE

average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material. actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit. qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

METALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1592 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Program: SF

Id/Station: QA009PES /

Media: WATSPK

Conestee, SC

Case No: 28761

MD No: 0AF2

D No: 0AF2

Inorg Contractor: CHEM

Org Contractor: MITKEM

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 11/28/2000 16:00

Ending:

0008056E,0007033V,003460P,0013262M,0025229CN

RESULTS	UNITS	ANALYTE
32000	UG/L	ALUMINUM
12	UG/L	ANTIMONY
3.8	UG/L	ARSENIC
0.34	UG/L	BARIUM
20	UG/L	BERYLLIUM
0.40U	UG/L	CADMIUM
5.4U	UG/L	CALCIUM
24	UG/L	CHROMIUM
770	UG/L	COBALT
62	UG/L	COPPER
71	UG/L	IRON
1.4U	UG/L	LEAD
6.5U	UG/L	MAGNESIUM
160	UG/L	MANGANESE
4.0	UG/L	TOTAL MERCURY
840	UG/L	NICKEL
17U	UG/L	POTASSIUM
3.8U	UG/L	SELENIUM
43	UG/L	SILVER
240U	UG/L	SODIUM
15	UG/L	THALLIUM
0.60U	UG/L	VANADIUM
1.9	UG/L	ZINC
99	UG/L	CYANIDE

average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
pc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

METALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1593 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Program: SF

Id/Station: QA005PES /

Media: SEDIMSPKK

Conestee, SC

Case No: 28761

MD No: 0AF3

Inorg Contractor: CHEM

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 11/28/2000 16:00

Ending:

ICC00421

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
1100	MG/KG	ALUMINUM
4.6	MG/KG	ANTIMONY
140	MG/KG	ARSENIC
260	MG/KG	BARIUM
0.10	MG/KG	BERYLLIUM
1.6	MG/KG	CADMIUM
34000	MG/KG	CALCIUM
4.4	MG/KG	CHROMIUM
9.8	MG/KG	COBALT
540	MG/KG	COPPER
3300	MG/KG	IRON
1800	MG/KG	LEAD
14000	MG/KG	MAGNESIUM
640	MG/KG	MANGANESE
0.12	MG/KG	TOTAL MERCURY
7.2	MG/KG	NICKEL
560	MG/KG	POTASSIUM
0.76U	MG/KG	SELENIUM
0.12U	MG/KG	SILVER
120	MG/KG	SODIUM
0.96U	MG/KG	THALLIUM
250	MG/KG	VANADIUM
460	MG/KG	ZINC
NA	MG/KG	CYANIDE
0	%	% MOISTURE

YANIDE ANALYSIS NOT REQUESTED

average value. NA-not analyzed. NA1-interferences. J-estimated value. N-presumptive evidence of presence of material.
actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

METALS SAMPLE ANALYSIS

EPA - REGION IV SED, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1594 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Program: SF

Id/Station: LCS03 /

Media: SOIL

Conestee, SC

Case No: 28761

MD No: 0CY9

D No: 0CY9

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 11/27/2000 09:10

Ending:

Inorg Contractor: CHEM

Org Contractor: MITKEM

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
52000	MG/KG	ALUMINUM
28	MG/KG	ANTIMONY
9.6	MG/KG	ARSENIC
230	MG/KG	BARIUM
1.7	MG/KG	BERYLLIUM
5.9	MG/KG	CADMIUM
810	MG/KG	CALCIUM
210	MG/KG	CHROMIUM
14	MG/KG	COBALT
110	MG/KG	COPPER
53000	MG/KG	IRON
170	MG/KG	LEAD
2900	MG/KG	MAGNESIUM
240	MG/KG	MANGANESE
0.56J	MG/KG	TOTAL MERCURY
23J	MG/KG	NICKEL
3200J	MG/KG	POTASSIUM
2.2J	MG/KG	SELENIUM
4.0	MG/KG	SILVER
94U	MG/KG	SODIUM
1.9U	MG/KG	THALLIUM
110	MG/KG	VANADIUM
300	MG/KG	ZINC
0.29U	MG/KG	CYANIDE
50	%	% MOISTURE

average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material. actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit. indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

METALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1595 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Conestee, SC

Requestor:

Project Leader: BDICK

Beginning: 11/27/2000 09:50

Ending:

Produced by: Guthrie, Diane

Case No: 28761

MD No: 0CZ0

D No: 0CZ0

Inorg Contractor: CHEM

Org Contractor: MITKEM

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
30000	MG/KG	ALUMINUM
4.2U	MG/KG	ANTIMONY
4.6	MG/KG	ARSENIC
170	MG/KG	BARIUM
1.3	MG/KG	BERYLLIUM
0.57	MG/KG	CADMIUM
1400	MG/KG	CALCIUM
68	MG/KG	CHROMIUM
13	MG/KG	COBALT
47	MG/KG	COPPER
39000	MG/KG	IRON
82	MG/KG	LEAD
3900	MG/KG	MAGNESIUM
330	MG/KG	MANGANESE
0.16UJ	MG/KG	TOTAL MERCURY
17J	MG/KG	NICKEL
4100J	MG/KG	POTASSIUM
1.3U	MG/KG	SELENIUM
0.47U	MG/KG	SILVER
80U	MG/KG	SODIUM
1.6U	MG/KG	THALLIUM
78	MG/KG	VANADIUM
240	MG/KG	ZINC
0.25U	MG/KG	CYANIDE
42	%	% MOISTURE

average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material. actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit. indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

METALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample	1596	FY 2001	Project: 01-0150	Produced by: Guthrie, Diane
METALS SCAN				
Facility:	Lake Conestee		Conestee, SC	Requestor:
Program:	SF			Project Leader: BDICK
Id/Station:	LCSED05 /		Case No: 28761	Beginning: 11/27/2000 10:45
Media:	SOIL		MD No: 0CZ1	Ending:
			D No: 0CZ1	Inorg Contractor: CHEM
				Org Contractor: MITKEM

RESULTS	UNITS	ANALYTE	DATA REPORTED ON DRY WEIGHT BASIS
26000	MG/KG	ALUMINUM	
3.4U	MG/KG	ANTIMONY	
6.3	MG/KG	ARSENIC	
170	MG/KG	BARIUM	
1.4	MG/KG	BERYLLIUM	
0.55	MG/KG	CADMIUM	
1400	MG/KG	CALCIUM	
73	MG/KG	CHROMIUM	
14	MG/KG	COBALT	
52	MG/KG	COPPER	
41000	MG/KG	IRON	
97	MG/KG	LEAD	
3800	MG/KG	MAGNESIUM	
320	MG/KG	MANGANESE	
0.17UJ	MG/KG	TOTAL MERCURY	
16J	MG/KG	NICKEL	
4000J	MG/KG	POTASSIUM	
1.3U	MG/KG	SELENIUM	
0.31	MG/KG	SILVER	
79U	MG/KG	SODIUM	
1.6U	MG/KG	THALLIUM	
86	MG/KG	VANADIUM	
250	MG/KG	ZINC	
0.25U	MG/KG	CYANIDE	
42	%	% MOISTURE	

average value. NA-not analyzed. NA=interferences. J-estimated value. N-presumptive evidence of presence of material.
 ical value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
 ic indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

METALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1597 FY 2001 Project: 01-0150

Produced by: Guthrie, Diane
Requestor:
Project Leader: BDICK
Beginning: 11/27/2000 09:35
Ending:

METALS SCAN

Facility: Lake Conestee
Program: SF
Id/Station: LCSW03 /
Media: SURFACE WATER
Conestee, SC
Case No: 28761
MD No: 0CZ2
D No: 0CZ2
Inorg Contractor: CHEM
Org Contractor: MITKEM

RESULTS	UNITS	ANALYTE
2300J	UG/L	ALUMINUM
5.3U	UG/L	ANTIMONY
3.7U	UG/L	ARSENIC
49	UG/L	BARIUM
0.28	UG/L	BERYLLIUM
4.9	UG/L	CADMIUM
14000	UG/L	CALCIUM
5.2	UG/L	CHROMIUM
28	UG/L	COBALT
35J	UG/L	COPPER
7400	UG/L	IRON
18	UG/L	LEAD
2400	UG/L	MAGNESIUM
1800	UG/L	MANGANESE
0.20U	UG/L	TOTAL MERCURY
23	UG/L	NICKEL
43000	UG/L	POTASSIUM
3.8U	UG/L	SELENIUM
0.60UJ	UG/L	SILVER
23000	UG/L	SODIUM
4.8U	UG/L	THALLIUM
10U	UG/L	VANADIUM
1200	UG/L	ZINC
38	UG/L	CYANIDE

METALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1598 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Program: SF

Id/Station: LCR01 /

Media: SURFACE WATER

Conestee, SC

Case No: 28761

MD No: 0CZ3

D No: 0CZ3

Inorg Contractor: CHEM

Org Contractor: MITKEM

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 11/27/2000 11:30

Ending:

RESULTS	UNITS	ANALYTE
12UR	UG/L	ALUMINUM
5.3U	UG/L	ANTIMONY
3.7U	UG/L	ARSENIC
0.20U	UG/L	BARIUM
0.10U	UG/L	BERYLLIUM
0.40U	UG/L	CADMIUM
5.4U	UG/L	CALCIUM
0.50U	UG/L	CHROMIUM
0.50U	UG/L	COBALT
0.70UJ	UG/L	COPPER
18J	UG/L	IRON
1.4U	UG/L	LEAD
6.5U	UG/L	MAGNESIUM
0.20U	UG/L	MANGANESE
0.20U	UG/L	TOTAL MERCURY
0.70U	UG/L	NICKEL
17U	UG/L	POTASSIUM
3.8U	UG/L	SELENIUM
0.60UJ	UG/L	SILVER
240U	UG/L	SODIUM
4.8U	UG/L	THALLIUM
0.60U	UG/L	VANADIUM
0.80U	UG/L	ZINC
10U	UG/L	CYANIDE

average value. NA-not analyzed. NA1-interferences. J-estimated value. N-presumptive evidence of presence of material. actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit. c indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

METALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1599 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Conestee, SC

Program: SF

Id/Station: LCS222 /

Media: SOIL

Case No: 28761

MD No: 0DD5

D No: 0DD5

Inorg Contractor: CHEM

Org Contractor: MITKEM

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 11/30/2000 14:30

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
14000	MG/KG	ALUMINUM
2.2U	MG/KG	ANTIMONY
7.3J	MG/KG	ARSENIC
120	MG/KG	BARIUM
0.83	MG/KG	BERYLLIUM
1.1U	MG/KG	CADMIUM
1200	MG/KG	CALCIUM
44	MG/KG	CHROMIUM
9.1U	MG/KG	COBALT
30	MG/KG	COPPER
23000	MG/KG	IRON
65	MG/KG	LEAD
2700	MG/KG	MAGNESIUM
260	MG/KG	MANGANESE
0.23	MG/KG	TOTAL MERCURY
10	MG/KG	NICKEL
2500J	MG/KG	POTASSIUM
1.6UR	MG/KG	SELENIUM
0.25U	MG/KG	SILVER
98U	MG/KG	SODIUM
2.0U	MG/KG	THALLIUM
48	MG/KG	VANADIUM
160	MG/KG	ZINC
0.30U	MG/KG	CYANIDE
52	%	% MOISTURE

average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material. actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit. indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

METALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1600 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Program: SF

Conestee, SC

Id/Station: LCSW23 /

Media: SURFACE WATER

Case No: 28761

MD No: 0DD6

D No: 0DD6

Inorg Contractor: CHEM

Org Contractor: MITKEM

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 11/30/2000 15:10

Ending:

RESULTS UNITS ANALYTE

170UJ	UG/L	ALUMINUM
5.3U	UG/L	ANTIMONY
3.7U	UG/L	ARSENIC
40	UG/L	BARIUM
0.10U	UG/L	BERYLLIUM
0.40U	UG/L	CADMIUM
6800	UG/L	CALCIUM
0.82U	UG/L	CHROMIUM
1.4U	UG/L	COBALT
3.6	UG/L	COPPER
12000	UG/L	IRON
3.5	UG/L	LEAD
1800	UG/L	MAGNESIUM
560	UG/L	MANGANESE
0.20U	UG/L	TOTAL MERCURY
1.9U	UG/L	NICKEL
5200J	UG/L	POTASSIUM
3.8U	UG/L	SELENIUM
0.82UJ	UG/L	SILVER
4000	UG/L	SODIUM
4.8U	UG/L	THALLIUM
1.1U	UG/L	VANADIUM
46J	UG/L	ZINC
10U	UG/L	CYANIDE

average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

METALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1601 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Program: SF

Id/Station: LCSED09 /

Media: SOIL

Conestee, SC

Case No: 28761

MD No: 0CZ8

D No: 0CZ8

Inorg Contractor: CHEMA

Org Contractor: MITKEM

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 11/27/2000 14:40

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
22000	MG/KG	ALUMINUM
4.0U	MG/KG	ANTIMONY
6.5	MG/KG	ARSENIC
170	MG/KG	BARIUM
1.3	MG/KG	BERYLLIUM
0.64	MG/KG	CADMIUM
970	MG/KG	CALCIUM
78	MG/KG	CHROMIUM
16	MG/KG	COBALT
49	MG/KG	COPPER
38000	MG/KG	IRON
95	MG/KG	LEAD
3400	MG/KG	MAGNESIUM
390	MG/KG	MANGANESE
0.17UJ	MG/KG	TOTAL MERCURY
15J	MG/KG	NICKEL
3700J	MG/KG	POTASSIUM
1.3U	MG/KG	SELENIUM
0.65U	MG/KG	SILVER
80U	MG/KG	SODIUM
1.6U	MG/KG	THALLIUM
88	MG/KG	VANADIUM
220	MG/KG	ZINC
0.25U	MG/KG	CYANIDE
42	%	% MOISTURE

average value. NA-not analyzed. NA1-interferences. J-estimated value. N-presumptive evidence of presence of material.
actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
ic indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

METALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1602 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Conestee, SC

Program: SF

Id/Station: LCSED10 /

Media: SOIL

Case No: 28761

MD No: 0CZ9

D No: 0CZ9

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 11/27/2000 14:51

Ending:

Inorg Contractor: CHEM

Org Contractor: MITKEM

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
40000	MG/KG	ALUMINUM
2.8U	MG/KG	ANTIMONY
7.8	MG/KG	ARSENIC
180	MG/KG	BARIUM
1.5	MG/KG	BERYLLIUM
1.1	MG/KG	CADMIUM
1300	MG/KG	CALCIUM
84	MG/KG	CHROMIUM
16	MG/KG	COBALT
51	MG/KG	COPPER
50000	MG/KG	IRON
96	MG/KG	LEAD
3800	MG/KG	MAGNESIUM
450	MG/KG	MANGANESE
0.17UJ	MG/KG	TOTAL MERCURY
21J	MG/KG	NICKEL
4300J	MG/KG	POTASSIUM
1.4U	MG/KG	SELENIUM
0.55U	MG/KG	SILVER
84U	MG/KG	SODIUM
1.7U	MG/KG	THALLIUM
93	MG/KG	VANADIUM
280	MG/KG	ZINC
0.26U	MG/KG	CYANIDE
45	%	% MOISTURE

average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material. actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit. indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

METALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample	1603	FY 2001	Project: 01-0150	Produced by: Guthrie, Diane
METALS SCAN				
Facility:	Lake Conestee			Requestor:
Program:	SF			Project Leader: BDICK
Id/Station:	LCSED11 /			Beginning: 11/27/2000 15:30
Media:	SOIL			Ending:
			Inorg Contractor: CHEM	
			Org Contractor: MITKEM	
			Case No: 28761	
			MD No: 0D00	
			D No: 0D00	
			Conestee, SC	

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
42000	MG/KG	ALUMINUM
20U	MG/KG	ANTIMONY
7.0	MG/KG	ARSENIC
220	MG/KG	BARIUM
1.6	MG/KG	BERYLLIUM
9.5	MG/KG	CADMIUM
1000	MG/KG	CALCIUM
230	MG/KG	CHROMIUM
12	MG/KG	COBALT
110	MG/KG	COPPER
49000	MG/KG	IRON
250	MG/KG	LEAD
2600	MG/KG	MAGNESIUM
280	MG/KG	MANGANESE
0.28J	MG/KG	TOTAL MERCURY
19J	MG/KG	NICKEL
2700J	MG/KG	POTASSIUM
1.4U	MG/KG	SELENIUM
3.8	MG/KG	SILVER
87U	MG/KG	SODIUM
1.8U	MG/KG	THALLIUM
99	MG/KG	VANADIUM
300	MG/KG	ZINC
0.27U	MG/KG	CYANIDE
46	%	% MOISTURE

average value. NA-not analyzed. NA1-interferences. J-estimated value. N-presumptive evidence of presence of material.
actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

METALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Sample 1604 FY 2001 Project: 01-0150

Production Date: 01/24/2001 13:34

METALS SCAN

Facility: Lake Conestee

Program: SF

Id/Station: LCSED12 /

Media: SOIL

Conestee, SC

Case No: 28761

MD No: 0D01

D No: 0D01

Produced by: Guthrie, Diane
Requestor:

Project Leader: BDICK

Beginning: 11/27/2000 15:45

Ending:

Inorg Contractor: CHEM
Org Contractor: MITKEM

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
33000	MG/KG	ALUMINUM
4.6U	MG/KG	ANTIMONY
10	MG/KG	ARSENIC
150	MG/KG	BARIUM
1.4	MG/KG	BERYLLIUM
3.1	MG/KG	CADMIUM
1100	MG/KG	CALCIUM
92	MG/KG	CHROMIUM
16	MG/KG	COBALT
57	MG/KG	COPPER
51000	MG/KG	IRON
110	MG/KG	LEAD
3100	MG/KG	MAGNESIUM
370	MG/KG	MANGANESE
0.22J	MG/KG	TOTAL MERCURY
20J	MG/KG	NICKEL
3000J	MG/KG	POTASSIUM
1.3U	MG/KG	SELENIUM
0.49U	MG/KG	SILVER
84U	MG/KG	SODIUM
1.7U	MG/KG	THALLIUM
95	MG/KG	VANADIUM
280	MG/KG	ZINC
0.26U	MG/KG	CYANIDE
45	%	% MOISTURE

verage value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit
indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification

METALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1605 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Program: SF

Id/Station: LCS06 /

Media: SOIL

Conestee, SC

Case No: 28761

MD No: 0CZ4

D No: 0CZ4

Inorg Contractor: CHEM

Org Contractor: MITKEM

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 11/27/2000 11:00

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
40000	MG/KG	ALUMINUM
5.7U	MG/KG	ANTIMONY
11	MG/KG	ARSENIC
170	MG/KG	BARIUM
1.5	MG/KG	BERYLLIUM
1.9	MG/KG	CADMIUM
1300	MG/KG	CALCIUM
87	MG/KG	CHROMIUM
15	MG/KG	COBALT
54	MG/KG	COPPER
45000	MG/KG	IRON
120	MG/KG	LEAD
3400	MG/KG	MAGNESIUM
360	MG/KG	MANGANESE
0.19J	MG/KG	TOTAL MERCURY
22J	MG/KG	NICKEL
3800J	MG/KG	POTASSIUM
1.2U	MG/KG	SELENIUM
0.65	MG/KG	SILVER
75U	MG/KG	SODIUM
2.9U	MG/KG	THALLIUM
95	MG/KG	VANADIUM
270	MG/KG	ZINC
0.23U	MG/KG	CYANIDE
37	%	% MOISTURE

verage value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
ic indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

METALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1606 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Program: SF

Id/Station: LCSED07 /

Media: SOIL

Conestee, SC

Case No: 28761

MD No: 0CZ5

D No: 0CZ5

Inorg Contractor: CHEM

Org Contractor: MITKEM

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 11/27/2000 13:38

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
26000	MG/KG	ALUMINUM
2.0U	MG/KG	ANTIMONY
7.9	MG/KG	ARSENIC
150	MG/KG	BARIUM
1.2	MG/KG	BERYLLIUM
0.46	MG/KG	CADMIUM
1200	MG/KG	CALCIUM
66	MG/KG	CHROMIUM
13	MG/KG	COBALT
40	MG/KG	COPPER
38000	MG/KG	IRON
76	MG/KG	LEAD
3600	MG/KG	MAGNESIUM
380	MG/KG	MANGANESE
0.19J	MG/KG	TOTAL MERCURY
16J	MG/KG	NICKEL
3800J	MG/KG	POTASSIUM
1.3U	MG/KG	SELENIUM
0.72	MG/KG	SILVER
78U	MG/KG	SODIUM
1.6U	MG/KG	THALLIUM
77	MG/KG	VANADIUM
210	MG/KG	ZINC
0.24U	MG/KG	CYANIDE
41	%	% MOISTURE

verage value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
 ctual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
 c indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

METALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample	1607	FY 2001	Project: 01-0150	Produced by: Guthrie, Diane
METALS SCAN				
Facility:	Lake Conestee	Conestee, SC	Requestor:	
Program:	SF		Project Leader:	BDICK
Id/Station:	LCSED08 /	Case No: 28761	Beginning:	11/27/2000 13:55
Media:	SOIL	MD No: 0CZ6	Ending:	
		D No: 0CZ6	Inorg Contractor:	CHEM
			Org Contractor:	MITKEM
DATA REPORTED ON DRY WEIGHT BASIS				

RESULTS	UNITS	ANALYTE
33000	MG/KG	ALUMINUM
53	MG/KG	ANTIMONY
8.9	MG/KG	ARSENIC
220	MG/KG	BARIUM
1.4	MG/KG	BERYLLIUM
16	MG/KG	CADMIUM
1200	MG/KG	CALCIUM
220	MG/KG	CHROMIUM
11	MG/KG	COBALT
120	MG/KG	COPPER
46000	MG/KG	IRON
220	MG/KG	LEAD
2700	MG/KG	MAGNESIUM
300	MG/KG	MANGANESE
0.45J	MG/KG	TOTAL MERCURY
20J	MG/KG	NICKEL
2900J	MG/KG	POTASSIUM
1.3U	MG/KG	SELENIUM
6.2	MG/KG	SILVER
80U	MG/KG	SODIUM
1.6U	MG/KG	THALLIUM
91	MG/KG	VANADIUM
350	MG/KG	ZINC
0.45U	MG/KG	CYANIDE
43	%	% MOISTURE

verage value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
ctual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
c indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

METALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1608 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Program: SF

Id/Station: LCSW08 /

Media: SURFACE WATER

Conestee, SC

Case No: 28761

MD No: 0CZ7

D No: 0CZ7

Inorg Contractor: CHEM

Org Contractor: MITKEM

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 11/27/2000 14:20

Ending:

RESULTS UNITS ANALYTE

4500J	UG/L	ALUMINUM
5.3U	UG/L	ANTIMONY
7.5U	UG/L	ARSENIC
75	UG/L	BARIUM
2.1	UG/L	BERYLLIUM
120	UG/L	CADMIUM
54000	UG/L	CALCIUM
6.5	UG/L	CHROMIUM
220	UG/L	COBALT
60J	UG/L	COPPER
12000	UG/L	IRON
14	UG/L	LEAD
8400	UG/L	MAGNESIUM
7800	UG/L	MANGANESE
0.20U	UG/L	TOTAL MERCURY
140	UG/L	NICKEL
13000	UG/L	POTASSIUM
3.8U	UG/L	SELENIUM
0.60UJ	UG/L	SILVER
46000	UG/L	SODIUM
9.8U	UG/L	THALLIUM
0.60U	UG/L	VANADIUM
6300	UG/L	ZINC
10U	UG/L	CYANIDE

verage value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
 ctual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit
 c indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

METALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1609 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Program: SF

Id/Station: LCSED23 /

Media: SOIL

Conestee, SC

Case No: 28761

MD No: 0DD7

D No: 0DD7

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 11/30/2000 15:10

Ending:

Inorg Contractor: CHEM

Org Contractor: MITKEM

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
17000	MG/KG	ALUMINUM
7.9U	MG/KG	ANTIMONY
3.6U	MG/KG	ARSENIC
140	MG/KG	BARIUM
0.88	MG/KG	BERYLLIUM
3.4	MG/KG	CADMIUM
970	MG/KG	CALCIUM
68	MG/KG	CHROMIUM
9.3U	MG/KG	COBALT
38	MG/KG	COPPER
26000	MG/KG	IRON
93	MG/KG	LEAD
3300	MG/KG	MAGNESIUM
200	MG/KG	MANGANESE
0.50	MG/KG	TOTAL MERCURY
12	MG/KG	NICKEL
2400J	MG/KG	POTASSIUM
2.3J	MG/KG	SELENIUM
0.22U	MG/KG	SILVER
87U	MG/KG	SODIUM
2.7U	MG/KG	THALLIUM
55	MG/KG	VANADIUM
250	MG/KG	ZINC
0.27U	MG/KG	CYANIDE
47	%	% MOISTURE

average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material. actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit. c indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

METALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1610 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Program: SF

Id/Station: LCSW24 /

Media: SURFACE WATER

Conestee, SC

Case No: 28761

MD No: 0DD8

D No: 0DD8

Inorg Contractor: CHEM

Org Contractor: MITKEM

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 11/30/2000 16:15

Ending:

RESULTS UNITS ANALYTE

260J	UG/L	ALUMINUM
5.3U	UG/L	ANTIMONY
3.7U	UG/L	ARSENIC
38	UG/L	BARIUM
0.10U	UG/L	BERYLLIUM
0.40U	UG/L	CADMIUM
5000	UG/L	CALCIUM
1.3U	UG/L	CHROMIUM
2.2U	UG/L	COBALT
3.7	UG/L	COPPER
9800	UG/L	IRON
7.5	UG/L	LEAD
1500	UG/L	MAGNESIUM
830	UG/L	MANGANESE
0.20U	UG/L	TOTAL MERCURY
0.70U	UG/L	NICKEL
4500J	UG/L	POTASSIUM
3.8U	UG/L	SELENIUM
0.60UJ	UG/L	SILVER
3000	UG/L	SODIUM
8.1U	UG/L	THALLIUM
1.5U	UG/L	VANADIUM
33	UG/L	ZINC
10U	UG/L	CYANIDE

average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
c indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

METALS SAMPLE ANALYSIS

EPA - REGION IV SED, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1611 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Program: SF

Id/Station: LCSED24 /

Media: SOIL

Conestee, SC

Case No: 28761

MD No: 0DD9

D No: 0DD9

Inorg Contractor: CHEM

Org Contractor: MITKEM

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 11/30/2000 16:15

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
13000	MG/KG	ALUMINUM
26	MG/KG	ANTIMONY
2.8U	MG/KG	ARSENIC
120	MG/KG	BARIUM
0.72	MG/KG	BERYLLIUM
5.1	MG/KG	CADMIUM
760	MG/KG	CALCIUM
76	MG/KG	CHROMIUM
10	MG/KG	COBALT
51	MG/KG	COPPER
22000	MG/KG	IRON
96	MG/KG	LEAD
2100	MG/KG	MAGNESIUM
160	MG/KG	MANGANESE
0.84	MG/KG	TOTAL MERCURY
10	MG/KG	NICKEL
1700J	MG/KG	POTASSIUM
1.7UJ	MG/KG	SELENIUM
1.2U	MG/KG	SILVER
95U	MG/KG	SODIUM
1.9U	MG/KG	THALLIUM
46	MG/KG	VANADIUM
230	MG/KG	ZINC
0.30U	MG/KG	CYANIDE
52	%	% MOISTURE

verage value. NA-not analyzed. NA1-interferences. J-estimated value. N-presumptive evidence of presence of material.
x-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
; indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

METALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1612 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Program: SF

Id/Station: DEL0404 /

Media: SOIL

Conestee, SC

Case No: 28761

MD No: 0D26

D No: 0D26

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 11/30/2000 10:25

Ending:

Inorg Contractor: CHEM

Org Contractor: MITKEM

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
39000	MG/KG	ALUMINUM
6.2U	MG/KG	ANTIMONY
9.4	MG/KG	ARSENIC
200	MG/KG	BARIUM
1.4	MG/KG	BERYLLIUM
4.4	MG/KG	CADMIUM
960	MG/KG	CALCIUM
110	MG/KG	CHROMIUM
17	MG/KG	COBALT
53	MG/KG	COPPER
43000	MG/KG	IRON
200	MG/KG	LEAD
4000	MG/KG	MAGNESIUM
560	MG/KG	MANGANESE
0.42J	MG/KG	TOTAL MERCURY
19	MG/KG	NICKEL
4100J	MG/KG	POTASSIUM
1.0U	MG/KG	SELENIUM
0.16UJ	MG/KG	SILVER
64U	MG/KG	SODIUM
1.5U	MG/KG	THALLIUM
87	MG/KG	VANADIUM
260	MG/KG	ZINC
0.19U	MG/KG	CYANIDE
26	%	% MOISTURE

verage value. NA-not analyzed. NA1-interferences. J-estimated value. N-presumptive evidence of presence of material.
 ctual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
 c indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification

METALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1613 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Program: SF

Id/Station: DEL0448 /

Media: SOIL

Conestee, SC

Case No: 28761

MD No: 0D27

D No: 0D27

Inorg Contractor: CHEM

Org Contractor: MITKEM

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 11/30/2000 10:25

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
52000	MG/KG	ALUMINUM
3.2U	MG/KG	ANTIMONY
12	MG/KG	ARSENIC
260	MG/KG	BARIUM
1.8	MG/KG	BERYLLIUM
19	MG/KG	CADMIUM
1600	MG/KG	CALCIUM
530	MG/KG	CHROMIUM
16U	MG/KG	COBALT
110	MG/KG	COPPER
56000	MG/KG	IRON
270	MG/KG	LEAD
3900	MG/KG	MAGNESIUM
660	MG/KG	MANGANESE
1.0J	MG/KG	TOTAL MERCURY
24	MG/KG	NICKEL
4100J	MG/KG	POTASSIUM
1.3U	MG/KG	SELENIUM
0.29UJ	MG/KG	SILVER
81U	MG/KG	SODIUM
1.6U	MG/KG	THALLIUM
110	MG/KG	VANADIUM
360	MG/KG	ZINC
0.25U	MG/KG	CYANIDE
43	%	% MOISTURE

verage value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
ctual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
c indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

METALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1614 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Conestee, SC

Program: SF

Id/Station: EL041216 /

Media: SOIL

Case No: 28761

MD No: 0D28

D No: 0D28

Inorg Contractor: CHEM

Org Contractor: MITKEM

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 11/30/2000 10:25

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
2800	MG/KG	ALUMINUM
1.4U	MG/KG	ANTIMONY
1.5U	MG/KG	ARSENIC
34	MG/KG	BARIUM
0.18	MG/KG	BERYLLIUM
0.45U	MG/KG	CADMIUM
260	MG/KG	CALCIUM
110	MG/KG	CHROMIUM
2.4U	MG/KG	COBALT
7.8	MG/KG	COPPER
5200	MG/KG	IRON
16	MG/KG	LEAD
640	MG/KG	MAGNESIUM
37	MG/KG	MANGANESE
0.53J	MG/KG	TOTAL MERCURY
1.7	MG/KG	NICKEL
590J	MG/KG	POTASSIUM
0.98U	MG/KG	SELENIUM
0.16UJ	MG/KG	SILVER
61U	MG/KG	SODIUM
1.2U	MG/KG	THALLIUM
9.9U	MG/KG	VANADIUM
48	MG/KG	ZINC
NA	MG/KG	CYANIDE
23	%	% MOISTURE

ANIDE ANALYSIS NOT REQUESTED

verage value. NA-not analyzed. NA1-interferences. J-estimated value. N-presumptive evidence of presence of material.
tual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

METALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Program: SF

Id/Station: DEL0504 /

Media: SOIL

Conestee, SC

Case No: 28761

MD No: 0D29

D No: 0D29

Inorg Contractor: CHEM

Org Contractor: MITKEM

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 11/30/2000 11:30

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
31000	MG/KG	ALUMINUM
1.6U	MG/KG	ANTIMONY
9.4	MG/KG	ARSENIC
180	MG/KG	BARIUM
1.3	MG/KG	BERYLLIUM
0.68U	MG/KG	CADMIUM
1900	MG/KG	CALCIUM
74	MG/KG	CHROMIUM
14U	MG/KG	COBALT
47	MG/KG	COPPER
40000	MG/KG	IRON
98	MG/KG	LEAD
3600	MG/KG	MAGNESIUM
580	MG/KG	MANGANESE
0.36J	MG/KG	TOTAL MERCURY
16	MG/KG	NICKEL
3900J	MG/KG	POTASSIUM
1.1U	MG/KG	SELENIUM
0.18UJ	MG/KG	SILVER
71U	MG/KG	SODIUM
1.4U	MG/KG	THALLIUM
80	MG/KG	VANADIUM
220	MG/KG	ZINC
0.26U	MG/KG	CYANIDE
36	%	% MOISTURE

verage value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
 ctual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
 c indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

METALS SAMPLE ANALYSIS

EPA - REGION IV SED, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1616 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Program: SF

Id/Station: EL05812 /

Media: SOIL

Conestee, SC

Case No: 28761

MD No: 0D30

D No: 0D30

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 11/30/2000 11:30

Ending:

Inorg Contractor: CHEM

Org Contractor: MITKEM

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
20000	MG/KG	ALUMINUM
2.8U	MG/KG	ANTIMONY
5.8	MG/KG	ARSENIC
220	MG/KG	BARIUM
1.1	MG/KG	BERYLLIUM
1.9	MG/KG	CADMIUM
1100	MG/KG	CALCIUM
370	MG/KG	CHROMIUM
10U	MG/KG	COBALT
73	MG/KG	COPPER
30000	MG/KG	IRON
170	MG/KG	LEAD
2500	MG/KG	MAGNESIUM
180	MG/KG	MANGANESE
1.6J	MG/KG	TOTAL MERCURY
9.2	MG/KG	NICKEL
2200J	MG/KG	POTASSIUM
1.2U	MG/KG	SELENIUM
0.82UJ	MG/KG	SILVER
75U	MG/KG	SODIUM
1.5U	MG/KG	THALLIUM
75	MG/KG	VANADIUM
260	MG/KG	ZINC
0.24U	MG/KG	CYANIDE
39	%	% MOISTURE

verage value. NA-not analyzed. NAJ-interferences. J-estimated value. N-presumptive evidence of presence of material. actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit. C indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

METALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1617 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Program: SF

Id/Station: DEL0604 /

Media: SOIL

Conestee, SC

Case No: 28761

MD No: 0D32

D No: 0D32

Inorg Contractor: CHEM

Org Contractor: MITKEM

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 11/30/2000 12:45

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
13000	MG/KG	ALUMINUM
1.3U	MG/KG	ANTIMONY
2.8J	MG/KG	ARSENIC
150	MG/KG	BARIUM
0.70	MG/KG	BERYLLIUM
3.8	MG/KG	CADMIUM
480	MG/KG	CALCIUM
140	MG/KG	CHROMIUM
9.1U	MG/KG	COBALT
29	MG/KG	COPPER
22000	MG/KG	IRON
100	MG/KG	LEAD
3100	MG/KG	MAGNESIUM
240	MG/KG	MANGANESE
0.24J	MG/KG	TOTAL MERCURY
8.4	MG/KG	NICKEL
3100J	MG/KG	POTASSIUM
0.95U	MG/KG	SELENIUM
0.15UJ	MG/KG	SILVER
59U	MG/KG	SODIUM
3.1	MG/KG	THALLIUM
42	MG/KG	VANADIUM
150	MG/KG	ZINC
0.18U	MG/KG	CYANIDE
21	%	% MOISTURE

verage value. NA-not analyzed. NA1-interferences. J-estimated value. N-presumptive evidence of presence of material.
 ctual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
 s indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification

METALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1618 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Program: SF

Id/Station: DEL06048 /

Media: SOIL

Conestee, SC

Case No: 28761

MD No: 0D33

D No: 0D33

Inorg Contractor: CHEM

Org Contractor: MITKEM

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 11/30/2000 12:45

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
6600	MG/KG	ALUMINUM
1.4U	MG/KG	ANTIMONY
2.2U	MG/KG	ARSENIC
91	MG/KG	BARIUM
0.44	MG/KG	BERYLLIUM
0.36U	MG/KG	CADMIUM
640	MG/KG	CALCIUM
180	MG/KG	CHROMIUM
3.9U	MG/KG	COBALT
22	MG/KG	COPPER
12000	MG/KG	IRON
48	MG/KG	LEAD
1300	MG/KG	MAGNESIUM
100	MG/KG	MANGANESE
0.45J	MG/KG	TOTAL MERCURY
3.5	MG/KG	NICKEL
1100J	MG/KG	POTASSIUM
0.99U	MG/KG	SELENIUM
0.82UJ	MG/KG	SILVER
61U	MG/KG	SODIUM
1.2U	MG/KG	THALLIUM
22	MG/KG	VANADIUM
89	MG/KG	ZINC
0.19U	MG/KG	CYANIDE
25	%	% MOISTURE

verage value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
ctual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
c indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

METALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1632 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Program: SF

Id/Station: LCIB01 /

Media: WATER

Conestee, SC

Case No: 28761

MD No: 0CY8

Inorg Contractor: CHEM

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 11/27/2000 09:00

Ending:

RESULTS UNITS

ANALYTE	RESULTS UNITS
49 ALUMINUM	UG/L
5.3U ANTIMONY	UG/L
3.7U ARSENIC	UG/L
0.48 BARIUM	UG/L
0.10U BERYLLIUM	UG/L
0.40U CADMIUM	UG/L
62 CALCIUM	UG/L
0.50U CHROMIUM	UG/L
0.50U COBALT	UG/L
0.70U COPPER	UG/L
69 IRON	UG/L
1.4U LEAD	UG/L
9.7 MAGNESIUM	UG/L
0.88 MANGANESE	UG/L
0.20U TOTAL MERCURY	UG/L
0.70U NICKEL	UG/L
79 POTASSIUM	UG/L
3.8U SELENIUM	UG/L
0.60U SILVER	UG/L
240U SODIUM	UG/L
4.8U THALLIUM	UG/L
1.4 VANADIUM	UG/L
21 ZINC	UG/L
NA CYANIDE	UG/L

CYANIDE ANALYSIS NOT REQUESTED

average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material. actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit. ic indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification

METALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1633 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Program: SF

Id/Station: LCSW21 /

Media: SURFACE WATER

Conestee, SC

Case No: 28761

MD No: ODD4

D No: ODD4

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 11/20/2000 14:30

Ending:

Inorg Contractor: CHEM

Org Contractor: MITKEM

RESULTS	UNITS	ANALYTE
160UJ	UG/L	ALUMINUM
5.3U	UG/L	ANTIMONY
3.7U	UG/L	ARSENIC
63	UG/L	BARIUM
0.10U	UG/L	BERYLLIUM
0.40U	UG/L	CADMIUM
17000	UG/L	CALCIUM
0.94U	UG/L	CHROMIUM
0.50U	UG/L	COBALT
1.8U	UG/L	COPPER
2200	UG/L	IRON
1.4U	UG/L	LEAD
2300	UG/L	MAGNESIUM
320	UG/L	MANGANESE
0.20U	UG/L	TOTAL MERCURY
2.5	UG/L	NICKEL
4700J	UG/L	POTASSIUM
3.8U	UG/L	SELENIUM
0.60UJ	UG/L	SILVER
4300	UG/L	SODIUM
7.4U	UG/L	THALLIUM
0.84U	UG/L	VANADIUM
38J	UG/L	ZINC
10U	UG/L	CYANIDE

average value. NA-not analyzed. NA=interferences. J-estimated value. N-presumptive evidence of presence of material.
actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

Sample 1665 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee
Program: SF
Id/Station: EL051620 /
Media: SOIL

Conestee, SC
Case No: 28761
MD No: 0D31
Inorg Contractor: CHEM

Produced by: Guthrie, Diane
Requestor:
Project Leader: BDICK
Beginning: 11/30/2000 11:30
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
2200	MG/KG	ALUMINUM
1.3U	MG/KG	ANTIMONY
0.92U	MG/KG	ARSENIC
15	MG/KG	BARIUM
0.13	MG/KG	BERYLLIUM
0.10U	MG/KG	CADMIUM
58	MG/KG	CALCIUM
6.9	MG/KG	CHROMIUM
1.3U	MG/KG	COBALT
1.4	MG/KG	COPPER
3400	MG/KG	IRON
2.4	MG/KG	LEAD
450	MG/KG	MAGNESIUM
39	MG/KG	MANGANESE
0.13J	MG/KG	TOTAL MERCURY
1.3	MG/KG	NICKEL
420J	MG/KG	POTASSIUM
0.95U	MG/KG	SELENIUM
0.15UJ	MG/KG	SILVER
59U	MG/KG	SODIUM
1.2U	MG/KG	THALLIUM
7.8U	MG/KG	VANADIUM
8.8	MG/KG	ZINC
NA	MG/KG	CYANIDE
20	%	% MOISTURE

YANIDE ANALYSIS NOT REQUESTED

METALS SAMPLE ANALYSIS

EPA - REGION IV SEDS, ATHENS, GA

Production Date: 01/24/2001 13:34

Sample 1666 FY 2001 Project: 01-0150

METALS SCAN

Facility: Lake Conestee

Program: SF

Id/Station: DEL06812 /

Media: SOIL

Conestee, SC

Case No: 28761

MD No: 0DD3

Inorg Contractor: CHEM

Produced by: Guthrie, Diane

Requestor:

Project Leader: BDICK

Beginning: 11/30/2000 12:

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
4100	MG/KG	ALUMINUM
1.3U	MG/KG	ANTIMONY
1.5U	MG/KG	ARSENIC
36	MG/KG	BARIUM
0.20	MG/KG	BERYLLIUM
0.22U	MG/KG	CADMIUM
260	MG/KG	CALCIUM
110	MG/KG	CHROMIUM
3.0U	MG/KG	COBALT
9.6	MG/KG	COPPER
6200	MG/KG	IRON
16	MG/KG	LEAD
540	MG/KG	MAGNESIUM
52	MG/KG	MANGANESE
0.26	MG/KG	TOTAL MERCURY
2.5	MG/KG	NICKEL
490J	MG/KG	POTASSIUM
0.94UR	MG/KG	SELENIUM
0.41U	MG/KG	SILVER
58U	MG/KG	SODIUM
1.3U	MG/KG	THALLIUM
11U	MG/KG	VANADIUM
64	MG/KG	ZINC
0.18U	MG/KG	CYANIDE
20	%	% MOISTURE

average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material. actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit. qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

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INFORMATION

DOCUMENT NBR 00436277

Notes and Correspondence 2003-2004

Lake Conster, SC



"Shirey, Alan D SAC"
<Alan.D.Shirey@USAC
E.ARM.Y.MIL>

08/27/2002 11:20 AM

To: Michelle Cook/R4/USEPA/US@EPA, "Dana Leavitt (E-mail)"
<dleavitt@upstateforever.org>, "Dave Hargett (E-mail)"
<dhargett@pincongrp.com>, "Brad Kuntz (E-mail)"
<bkuntz@zapeng.com>, "Greg Hippert (E-mail)"
<ghippert@zapeng.com>, "Jerry Wylie (E-mail) (E-mail)"
<jwylie@pincongrp.com>, "Angela K. Gorman (E-mail)"
<GORMANAK@COLUMB34.DHEC.STATE.SC.US>
cc: "McKinley, Dennis SAC" <Dennis.McKinley@usace.army.mil>
Subject: Lake Conestee

To the Lake Conestee Team:

Reminder: Our Draft Work Plan review meeting is scheduled for tomorrow (August 28) at 10:30 in the DHEC Greenville field office.

The purpose of the meeting is to discuss the comments on the Draft Work Plan and reach consensus agreement among the team. DHEC's and the Corps' comments are attached for everybody's information.

Call me (or Dennis 843-329-8052) if you have any questions.

Alan.

Alan Shirey

Lead Environmental Engineer
U.S. Army Corps of Engineers, Charleston District
69A Hagood Ave.
Charleston, SC 29403-5107
(843) 329-8166

<<DHEC Comments on Draft WP.doc>> <<Safety Office Comments on Zapata Draft SSHP.doc>> <<Lake Conestee Brownfields PM Comments.doc>> <<Lake Conestee Draft Work Plan review comments.doc>>



DHEC Comments on Draft



Safety Office Comments on Zapata Draft



Lake Conestee Brownfields PM Com



Lake Conestee Draft Work Plan review co

Section 5.1.4 - Sediment/Surface Water Samples from New Exposure Areas

The majority of the lake "sediment" samples collected during the Initial Targeted Brownfields Assessment (primarily from the East and South Bays of the lake) were exposed during sample collection. Under the current full pool conditions these sample locations are now submerged and the sediment quality at these submerged locations is likely not relevant to human health risk from direct contact. Because of the change in the conditions of the lake, additional sampling to evaluate human health risks from direct contact with sediments that are most accessible to visitors to the property was identified as an objective for the Follow-Up Investigation. Some activities such as wading may result in human exposure to submerged sediments, but it appears that the primary focus should be on sediment deposited during the lake's history that are now exposed above the water level of the lake. Comparison of aerial photographs from 1943 and 1999 indicate that such locations exist around Taylors Island, in the east and west deltaic areas, along the river channel between Crescent Slough and East Bay, and possibly within the West Bay/ Marrow Bone Creek area. Other factors to consider in selecting sample locations include:

1. Potential fluctuations in the water level that would affect the area of lake sediments accessible to visitors to the Lake.
2. Areas expected to have the most concentrated use both currently and in future use scenarios (around Taylors Island?).
3. Specific activities of visitors to the property (fishing, boating, hiking, wading, environmental teaching center activities).
4. Samples collected from exposed sediments during the Initial Phase of Assessment (West Delta and East Delta) were collected from four foot intervals. Depending on expected activities, human contact would most likely occur in the 0-2 foot interval.

Additional Comments added by Alan Shirey after discussion with Angela Gorman (excerpted from an e-mail from Angela on October 5, 2001).
Angela thought it would be a good idea to "remind" all of us some of the DQO thoughts that we had previously discussed.

-----Original Message-----

From: Angela K. Gorman

Sent: Friday, October 05, 2001 2:08 PM

To: hartnett.mickey@epa.gov; dmckinley@notes.sac.usace.army; dhargett@pincongrp.com; jwylie@pincongrp.com; alan.d.shirey@sac01.usace.army.mil

Cc: JETERGR@COLUMB34.DHEC.STATE.SC.US

Subject: Lake Conestee

Conestee Decision Group,

To keep everyone up to date on the Conestee Project and hopefully to facilitate planning for the next phase of assessment, I have updated the Data Quality Objectives. Please see the attached file ("Data Quality Objectives for Lake Conestee

Targeted Brownfield Assessment”). If anyone has comments or questions, please email the group so everyone has a chance to respond.

Data Quality Objectives for Lake Conestee Targeted Brownfield Assessment

Originally developed October 18, 2000, before implementation of Initial Phase of TBA

Updated October 5, 2001, after implementation of Initial Phase of TBA. Updated portions are written in *italics*.

Participants:

Mickey Hartnett	EPA	hartnett.mickey@epa.gov
404-562-8661		
Angela Gorman	SCDHEC	<u>gormanak@dhec.state.sc.us</u>
803-896-4121		
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864-467-0811 ext. 120		
Dave Hargett	Pinnacle	dhargett@pincongrp.com
864-467-0811 ext. 113		
Dennis McKinley	ACE	dmckinley@notes.sac.usace.army
843-329-8052		
Alan Shirey	ACE	alan.d.shirey@sac01.usace.army.mil
843-329-8166		

DQO Step 1 - State the Problems:

- 1) What is future threat to human health and the environment assuming recreational and educational use?
 - a) What is in sediment? *Partially addressed in Initial TBA. Still need to define and document constituents of concern based on available Initial TBA data. Remaining data needs include evaluation of quality of sediments exposed along the lake shoreline*
 - b) What is extent? *Distribution of contaminants appears to be across entire study area. Portions of the lake not addressed in Initial Phase will be addressed in next phase of assessment.*
 - c) What is surface water quality? *There appears to be minimal impact to surface water quality. Needs to be confirmed in next phase due to questions regarding turbidity in some samples.*
 - d) What is groundwater quality? *Groundwater quality assessment was limited to analysis of a single private well that showed no impacts to groundwater quality from contaminants present in the lake. No further groundwater sampling is planned.*
- 2) Is there a threat to downstream water and sediment quality? *Initial TBA results indicate substantially higher concentration of many constituents within Lake Conestee sediments than in Reedy River sediments downstream. Therefore, release of Lake Conestee sediments downstream would likely be a threat to downstream sediment quality. The closure of the dam gate in July*

2001 substantially reduced the release of sediments downstream.

DQO Step 2 - Identify the Decision:

1) Primary Decisions/Questions

- a) Is lake area land and water safe for use by people for recreational and educational use? *Risk screening indicates that PAH, pesticides, metals are elevated above EPA Region IX Preliminary Remediation Goals in soil and sediment. Further evaluation is necessary to determine if these levels pose a risk for the intended use of the lake. Second Phase will evaluate shoreline sediments that pose a route of exposure for human contact. Second Phase will also include fish tissue analysis to evaluate human health risk from fish ingestion.*
- b) Is area safe for fish/wildlife? *Ecological risk screening indicates that many constituents are well above ecological risk screening levels. Although not a primary focus of the Initial or Second Phase TBA, available data will continue to be used to evaluate ecological risk.*

2) Secondary Decisions/Questions

- a) What is fate of sediments? *Since July 2001, release of sediments from the lake has been substantially reduced by closure of the dam gate.*
- b) What is fate of the dam? *Gate has been closed. More permanent measures to control the dam are being evaluated.*

3) Possible Actions

- a) Posting, Fishing restrictions. *Not warranted based on Initial TBA results. Need fish tissue data from second phase of assessment to determine need for fishing restrictions.*
- b) Pursue PRPs, (How to pursue PRPs). *Not warranted at this time. Need to determine if intended use is appropriate with the contaminant levels present at the site and what corrective action measures if any are needed.*
- c) Management of dam - COE – determine whether to repair water control structure. *Temporary closure of dam gate implemented in July 2001. Additional permanent measures are still being evaluated.*

DQO Step 3 - Identify Inputs to the Decision / Information Needed to Make Decision

- 1) Identify shallow sediment quality to evaluate risks to people and critters through contact. *Accomplished in Initial Phase but data is limited in applicability to human health risk because sample locations are now underwater. Second Phase will evaluate sediments exposed along lake shoreline to further evaluate human health risk. Second Phase will also address fish tissue analysis and areas of lake not addressed in Initial Phase – northern and western portion of lake, beaver impounded areas.*
- 2) Identify deep sediment (down to native rock/soil) quality to evaluate risks from potential release downstream. *Accomplished in Initial Phase. Concentration of some contaminants appears to increase with depth. Risk for release downstream reduced by closure of dam gate. Contaminant*

concentration with depth still an issue for uses of the site that may disturb buried sediments.

- 3) Identify contaminant type and concentration. *Broad range of contaminants identified. Still need to define and document list of constituents of concern.*
- 4) Identify contaminant extent. *Initial TBA results indicate impact at all sediment sample locations.*
- 5) Ensure that data collection procedures are consistent between both phases of assessment so that results are comparable. *Initial TBA Sampling methods are documented in the Work Plan for Targeted Brownfields Assessment – Initial Phase, dated November 10, 2000 and the Initial Targeted Brownfields Assessment Report, dated March 8, 2001.*
- 6) Identify whether or not groundwater is impacted. *Groundwater quality assessment was limited to analysis of a single private well that showed no impacts to groundwater quality from contaminants present in the lake.*
- 7) Statistical analysis of data (need to identify appropriate statistical approach, source of info - Bill Davis, COE on assignment to EPA). *Not accomplished to date. May be part of evaluation of data upon completion of Second Phase TBA.*
- 8) Establish background, from existing references and/or benchmark location at Taylors Island. *Evaluation of TBA results and necessary actions are to be risk driven and not dependent on background concentration.*
- 9) Identify indicators (action level) for decisions. Indicators (action levels) to be identified through risk evaluation or screening rather than more rigorous risk assessment. *Applicable risk screening criteria are specified below:*
 - a) Exposed sediment (0-2 feet bgs): *EPA Region IX Preliminary Remediation Goals (Residential)*
 - b) Inundated sediment: *EPA Region IV Ecological Risk Assessment Bulletins-Supplement to RAGS (Sediment criteria)*
 - c) Soil(greater than 2 feet bgs): *EPA Region IV Ecological Risk Assessment Bulletins-Supplement to RAGS Screening Criteria for Soil, EPA Region IX Soil Screening Levels for Migration to Groundwater*
 - d) Surface Water: *EPA Region IV Ecological Risk Assessment Bulletins-Supplement to RAGS Freshwater Surface Water Screening Values, EPA Maximum Contaminant Levels*
- 10) Estimate quantity of sediments that have or could be released downstream. *Need lake profile and bathymetry info. The Initial Targeted Brownfields Assessment Report states that the quantity of sediment released downstream is estimated to be 60,000 cubic yards. With the July 2001 closure of the dam gate, the release of sediments downstream has ceased.*

DQO 4 - Define the Boundaries of the Study

- 1) General Area of Investigation includes
 - a) Conestee Foundation property
 - b) Reedy River sediments
 - c) Area of well survey/sampling

- d) 5 acre access area (no sampling planned, phase 1 type assessment only)
- 2) Specific Areas/Focus for Initial and Second Phase of the TBA
 - a) Initial Phase – SCDHEC
 - i) Conestee Foundation Property, specifically the following areas of the lake - the south lobe, east lobe, a slough along the west-side, mid-reach of the lake, the Marrow Bone Creek slough, and cores from the former delta areas. *Accomplished in Initial TBA through collection of 29 Lake Conestee sediment samples and 10 Lake Conestee surface water samples*
 - ii) Reedy River sediments between Lake Conestee Dam and approximately 3 miles downstream. *Accomplished in Initial TBA through collection of 10 Reedy River sediment samples between dam and Log Shoals Road.*
 - iii) Area of well survey/sampling. *SCDHEC conducted a well survey of the area immediately west south and east of the Lake. One private well still in use was sampled. No drinking water quality standards were exceeded.*
 - iv) Use GPS to document sampling point locations, mark contact points. *Initial TBA included survey of site boundaries and sampling locations (except for private well) with GPS.*
 - b) Second Phase – COE
 - i) Deeper zones, other spatial areas, groundwater, any hot spots identified in Phase 1. *Based on results of Initial TBA, focus of Second Phase has changed. Second Phase will include assessment of exposed sediment along lake shoreline that poses a potential direct contact route of exposure to persons visiting the site, other spatial areas not addressed in first phase of assessment (northern and western portions of the Lake, beaver impounded areas), and fish tissue analysis.*

DQO 5 - Develop a Decision Rule

- 1) Define thresholds for environmental and human health
 - a) Exposed sediment (0-2 feet bgs): *EPA Region IX Preliminary Remediation Goals (Residential)*
 - b) Inundated sediment: *EPA Region IV Ecological Risk Assessment Bulletins-Supplement to RAGS (Sediment criteria)*
 - c) Soil(greater than 2 feet bgs): *EPA Region IV Ecological Risk Assessment Bulletins-Supplement to RAGS Screening Criteria for Soil, EPA Region IX Soil Screening Levels for Migration to Groundwater*
 - d) Surface Water: *EPA Region IV Ecological Risk Assessment Bulletins-Supplement to RAGS Freshwater Surface Water Screening Values, EPA Maximum Contaminant Levels*
- 1) IF thresholds are exceeded, THEN:
 - a) Resample and confirm data. *Second Phase TBA will address remaining spatial areas of the Lake, exposed shoreline sediments, fish tissue analysis*
 - b) Meet with Decision Group to develop strategy. *Strategy for Second Phase*

discussed in meetings on June 5 and July 10, 2001. Strategy is still being developed through comments on COE Scope of Work for Targeted Brownfields Assessment Follow-Up Investigation, dated September 10, 2001.

- c) Notifications *Official postings not warranted at this time.*
- 2) IF we determine that dam gate needs to be closed (i.e., current release is a threat). *Although it is a temporary fix, the gate in the dam was closed to prevent further release of sediment downstream in the short term.*

**Safety and Occupational Health Office
Review of
Site Safety and Health Plan
Field Sampling and Analysis
Zapata Engineering Group**

Contractor has failed to incorporate many of the specific elements of EM 385-1-1, U. S. Army Corps of Engineers Safety and Occupational Health Requirements Manual. Just a few of the basic elements missing are included below.

1. Activity Hazard Analysis (AHA) will need to be developed for each major phase of the investigation/sampling. AHA's will then need to be reviewed in the field with all concerned prior to commencing work, and address the necessary controls required to insure employee safety and health.
2. Contractor needs to submit copies of all training credentials to insure those assigned to work will be in fact those on site. Credentials should include certificates of HTRW training, medical surveillance records, and CPR/first aid training.
3. The requirements for Hazard Communication need to be developed including employee right to know, use of MSDS, and training.
4. Safety meeting will need to be conducted weekly, and a supervisor meeting held monthly if applicable. The meeting must be documented, with a list of attendees. A record of this meeting is required to be submitted to the government.
5. Para. 2.8 we will need to see the credentials of the safety rep's (SSR) for subcontractors. Subcontractors need to be named with a copy furnished the government of their organizational structure, and safety plan.
6. Contractor needs to include the requirements for accident reporting and record keeping, i.e. 01.D of the safety manual needs to be reviewed by the contractor, and included in his plan. Also sub's need to be familiar with these requirements.
7. Recommend the contractor conduct a thorough review COE Safety Manual requirements, update his SSHP to include those requirements for his and his subcontractors work, and resubmit this plan for further review.

**MARK G. TURNER
Safety and Occupational
Health Manager**

CESAC-PM REVIEW COMMENTS

DRAFT - WORK PLAN ADDENDUM dated August 9, 2002

LAKE CONESTEE – Greenville, South Carolina

Department of Army Contract DACW60-00-D-0002, issued 12 July 2002.

Zapata Engineering PA

Comment 1. Scope or Work (SOW) requires for: 2.2 Preparation of Work Plan and Associated Sub-plans, The Work Plan Addendum (including subplans) shall describe all personnel and chain of command changes and include all appropriate certifications.The A-E shall utilize the services of a Certified Industrial Hygienist (CIH) experienced in hazardous waste site operations to oversee the development and implementation of the SSHP/SSHP Addendum. 2.3.4 Chemical Analysis A State of South Carolina certified laboratory shall be used for chemical analysis of the samples. ~~Include list of laboratory and list of chemicals to be analyzed.~~
~~to chemical analysis.~~

Comment 2. Section 2-1, first par. This work is being performed through Section 206 of the Water Resources Development ~~Program Act of 1966~~

Comment 3. SOW requires 2.3.6 Fish Tissue Sampling A minimum of ten fish should be collected from the beaver impoundments.

WPA 5.1.2 Fish Tissue Sampling 2 fish will be sampled from the beaver-impounded waters of west bay and Marrow Creek. ~~(is this consistent?)~~

Comment 4. SOW requires 2.3.7 Sediment and Surface Water Samples from Un-sampled AreasFifteen shallow sediment samples and five surface water samples should be collected from the West Bay area.

WPA 5.1.3 Sediment/Surface Water Samples from Unsampled Areas, par 2 . West Bay—~~Area: Fifteen shallow sediment samples and five surface water samples will be collected from this area.~~

Comment 5. SOW 2.6 Investigation Derived Waste(IDW) Management..... •Water IDW resulting from decontamination of equipment (i.e., “decon” water) should be collected and temporarily stored on-site (temporary storage not to exceed 45 days from completion of field work).

WPA 5.1.5. add: ~~temporarily stored on-site for not more than 45 days from completion of field work.~~

Comment 6. SOW 2.4 Preparation of Assessment Report ... Site plans that clearly show all of the sampling points shall also be included.

WPA 5.2 DATA EVALUATION AND REPORTING. Add: ~~Site plans that clearly show all of the sampling points shall also be included.~~

Comment 7. SOW 2.4 Preparation of Assessment Report ... This evaluation should include a

comparison of the detected contaminant levels to U.S. Environmental Protection Agency and South Carolina Department of Health and Environmental Control risk assessment levels.

WPA 5.2 DATA EVALUATION AND REPORTING. Change: This evaluation will include analysis and discussion of COCs, exposure assessment, toxicity assessment, uncertainty analysis, and a comparison of detected COC concentrations to ~~applicable state and federal~~ U.S. Environmental Protection Agency and South Carolina Department of Health and Environmental Control risk assessment ~~concentrations~~ levels.

Comment 8. SOW 2.4 Preparation of Assessment Report..... Draft and Final versions of the report (5 copies of each version) shall be submitted to the Corps for review and approval. The Draft and Final versions of the report shall be furnished with a professional certification signed by a registered geologist or engineer, as required by the State of South Carolina.

WPA 5.2 DATA EVALUATION AND REPORTING. Add: Data evaluation and reporting shall be performed by a registered geologist or engineer, as required by the State of South Carolina. The report (5 copies of each version) shall be submitted to the Corps for review and approval. The report and final version of the report shall be furnished with a protection plan, as required by a registered geologist or engineer, as required by the State of South Carolina.

Comment 9. SOW 3.1 Project Team..... The A-E's PM shall oversee the coordination and execution of the entire project.

[illegible]

Comment 10. SOW 2.5 Meetings and Conferences

The A-E is expected to attend the following meetings:

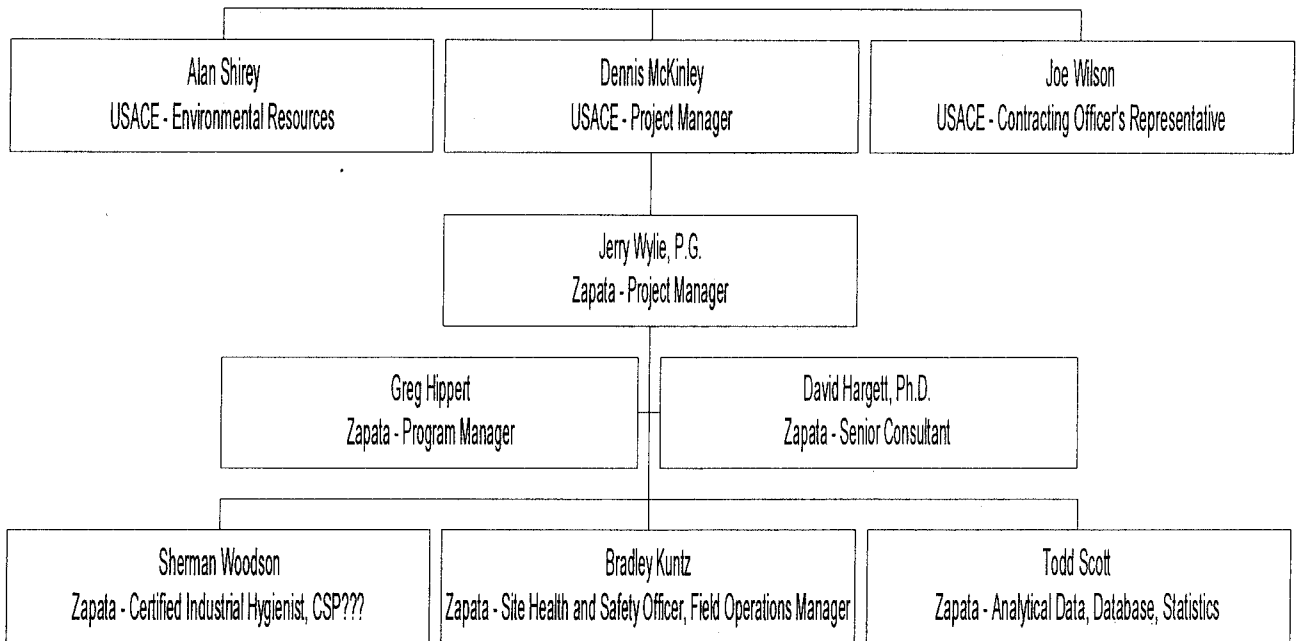
- Field Work Review Meeting (at Greenville, South Carolina)
- Public Availability Meeting (at Greenville, South Carolina)

The field work review meeting will be held after review of the draft Work Plan. The public availability meeting will be held after the final report. The purpose of the public availability meeting will be to inform the local citizenry surrounding Lake Conestee of the results of the investigation.

WPA 6.2 PROJECT COMMUNICATIONS, delete and rewrite to state: Zaphra will attend a work review meeting at Greenville S.C. after review of the draft work plan. A second availability meeting is Greenville, S.C. after the final report.

Comment 11. WPA Figure 10. Change to:

Follow-Up Investigations Team



Comment 12. WPA Figure 11.

- 7 ~~Approve/Review~~ Draft Workplan Addendum
- 13 Complete Site Assessment (Field Work)
- 15 Submit Draft Assessment Report
- 19 ~~Review/Approve~~ Draft Assessment Report

Comment 13. WPA Appendix A, 3.2, page A-9. Insert at bottom of page:

Plan, communication of equipment (fuel, lubricant, water) should be sufficient to ensure that the equipment is ready for use. The equipment should be ready for use at the time of the inspection. The equipment should be ready for use at the time of the inspection. The equipment should be ready for use at the time of the inspection.

**US Army Corps
of Engineers**

Charleston District

SCOPE OF WORK

**TARGETED BROWNFIELDS ASSESSMENT
FOLLOW-UP INVESTIGATION**

**LAKE CONESTEE
GREENVILLE, SOUTH CAROLINA**

April 29, 2002

1.0 INTRODUCTION

1.1 Site History and Description

Lake Conestee is located on the Reedy River in south-central Greenville County, South Carolina, approximately seven miles south of the City of Greenville near the unincorporated community of Conestee (see Figures 1 and 2). The Reedy River originates about 10 miles north of Greenville. Its drainage basin above the dam covers approximately 40,000 acres ($\sim 60 \text{ mi}^2$) and is characterized mostly by urban (i.e., residential and commercial/industrial) development. Downstream of the dam the Reedy River basin covers approximately 130,000 acres ($\sim 200 \text{ mi}^2$) and is characterized mostly by forest and agriculture.

Lake Conestee was recently purchased by The Conestee Foundation, a non-profit organization. The Conestee Foundation intends to preserve the lake as a community greenspace, nature preserve, and environmental education facility.

The Lake Conestee dam was originally constructed in the 1830's for the purpose of providing mechanical power for an adjacent mill that produced paper products and cotton textile goods. In the late 1800's the power plant was converted to generate hydroelectric power for the mill and the adjacent community of Conestee. The original dam was replaced in the early 1900's (exact date is not known, but it is known that the existing dam was in place as early 1914) by the present stone masonry dam. Since the present dam's construction in the early 1900's, the Greenville area has experienced significant industrial and residential growth. This growth has been accompanied with significant sediment and pollution (both point source and non-point source) loading into the river upstream of the dam. This sediment and pollution loading has transformed the once nearly 140 acre lake into a "deltaic-type" wetland with a distinguishable river channel nearly all the way to the dam with intermittent pools of water totaling approximately 30 acres in size. The total volume of sediment within the lakebed is difficult to estimate because the original depth of the lake is not known. A conservative estimate using a sediment depth of 10 feet over the entire acreage of the lake results in volumetric estimate of 2.3 million yd^3 of sediment.

The dam has not been used for power generation since the 1950's. During the intervening years, the wooden gate, the pinstock, and the butterfly valve used for controlling water flow to the powerhouse have deteriorated and failed. The result is an approximate 8-foot diameter hole through the dam that has allowed direct draining of the lake instead of the flow being diverted over the dam's spillway. The failed gate structure has historically been mostly plugged with debris to an extent that allows the pools of open water to form and the diversion of the majority of flow over the spillway. However, during the summer of 2000 the debris plug "failed," allowing the pools of water to begin to drain through the failed gate structure. This condition, accompanied with the low river flows associated with the recent drought, has resulted in complete drainage of the pools and a "run-of-the-river" condition in which the river channel flows right up to and through the open gate. This has resulted in a significant amount of erosion of the sediments from the lakebed into the river downstream of the dam. The channel that has been eroded in the lakebed extends for several hundred yards upstream of the dam. An estimated

Figure 1: Project Location Map

80,000 to 90,000 yd³ of contaminated sediments have been eroded from the lakebed and transported down river since the debris plug “failed” during the summer of 2000. This erosion has continued at an estimated rate of 5,000 to 10,000 yd³ per month. A temporary timber “cover” was installed over the open discharge pipe on the upstream side of the dam in June 2001. This temporary “cover” has stopped the majority of the sediment flow through the failed gate structure, allowed a pool to redevelop in the lake, and significantly reduced the sediment release into the river downstream of the dam.

Recent sampling of the lake’s sediments, in support of an EPA Targeted Brownfields Assessment, has revealed the following contaminants in the sediment: metals (i.e., chromium, barium, lead, aluminum, etc.), organo-chlorine pesticides (i.e., dieldrin, chlordane, DDT and its associated degradation compounds, etc.), PCBs, and polycyclic aromatic hydrocarbons (PAHs). Sampling downstream of the dam revealed the same contaminants present in the lake sediments are also present in the river sediments. The results of this sampling effort are detailed in a March 2001 report prepared for South Carolina Department of Health and Environmental Control (DHEC) by Pinnacle Consulting Group (see Reference 1.3.1). This sampling effort was performed prior to the temporary cover being installed over the gate opening; therefore, many areas of the lake that are flooded at “full pool” were dry.

1.2 Project Summary and Objectives

This project consists of soil sampling, fish tissue sampling, sediment sampling, and surface water sampling in Lake Conestee and some areas immediately surrounding the lake. Prior to the start of any field work, the A-E shall prepare a Work Plan and associated sub-plans describing the work to be accomplished and the methods used to ensure the collection of defensible, quality data and the protection of worker health.

The purpose of this phase of the Targeted Brownfields Assessment (TBA) is to assess releases of hazardous substances onto the property that could impact its use as a community greenspace and environmental education facility and assist in determining the need for cleanup or control measures to protect human health and the environment. This effort was initiated by EPA during the previous phase of the TBA. The following specific objectives will be pursued:

- Determine sediment and surface water contaminant levels in areas of Lake Conestee not sampled during the previous phase of the TBA.
- Determine fish tissue contaminant levels in specific areas of Lake Conestee order to support human health exposure assessments.
- Determine “background” soil contaminant levels in order to estimate regional sediment contaminant levels.
- Determine contaminant levels in surface waters and sediments that have become accessible to human exposure now that the lake is at “full pool.”

1.3 References

1.3.1 Pinnacle Consulting Group. *Initial Targeted Brownfields Assessment Report, Lake Conestee Site – Greenville County, South Carolina*. March 8, 2001

1.3.2 Pinnacle Consulting Group. *Work Plan - Targeted Brownfields Assessment – Initial Phase, Lake Conestee Site – Greenville County, South Carolina*. November 10, 2000

2.0 **DESCRIPTION OF SERVICES**

2.1 General Statement of A-E Services and Responsibilities

2.1.1 Services

The A-E shall perform all work in accordance with this Scope of Work and applicable Federal, State, and local regulations. The work consists of the following tasks:

- Preparation of a Work Plan and Associated Sub-plans
- Field Investigations and Chemical Analysis
- Preparation of Assessment Report
- Meetings and Conferences

2.1.2 Responsibilities

The A-E shall assume all responsibility for the accuracy and completeness of the work and services for the described project. The A-E shall not modify, add, delete, or change in any way the instructions stated in this scope of work without obtaining written approval from the Contracting Officer. Should the A-E receive any directions or instructions that are beyond this Scope of Work, the A-E shall notify the Contracting Officer in writing describing the changes and impact on the effort within 10 calendar days. The change(s) and impact on the work effort shall be described in sufficient detail such that the Government can fully assess the impacts on the project. The A-E should not proceed with such directions or instructions until receipt of a modification to this Scope of Work.

2.2 Preparation of Work Plan and Associated Sub-plans

The A-E shall prepare an addendum to the Work Plan that was used to conduct the previous phase of the Targeted Brownfields Assessment at Lake Conestee (see reference 1.3.1). This addendum shall discuss the rationale of proposed and planned actions for the follow-up assessment of Lake Conestee. The supporting subplans (Sampling and Analysis Plan; Quality Assurance Project Plan; and Site Safety and Health Plan (SSHP)) shall also be amended by

addendum (where necessary) so that the sub-plans apply to this follow-up assessment. The Work Plan Addendum (including subplans) shall address any changes in procedures, protocols, or other data. The Work Plan Addendum (including subplans) shall describe all personnel and chain of command changes and include all appropriate certifications.

Draft and Final versions of the Work Plan Addendum (5 copies of each version) shall be submitted to the U.S. Army Corps of Engineers, Charleston District (the Corps) for review and approval. The Draft and Final versions of the Work Plan Addendum shall be furnished with a professional certification signed by a registered geologist or engineer, as required by the State of South Carolina.

The SSHP/SSHP Addendum shall meet the requirements of 29 CFR 1910.120(b)(4), Corps of Engineers Manual EM 385-1-1, and Appendix C of Corps of Engineers Regulation ER 385-1-92. The SSHP/SSHP Addendum shall describe the health and safety procedures, practices, and equipment to be implemented and utilized in order to protect affected personnel from the potential hazards associated with the site-specific tasks to be performed. The level of detail in the SSHP/SSHP Addendum shall be tailored to the type of work, complexity of operations to be accomplished, and hazards anticipated. The SSHP/SSHP Addendum should not duplicate general information contained in the A-E's Safety and Health Program that is not specifically related to this project. The A-E shall utilize the services of a Certified Industrial Hygienist (CIH) experienced in hazardous waste site operations to oversee the development and implementation of the SSHP/SSHP Addendum. The CIH shall review and sign the draft and final submittals of the SSHP/SSHP Addendum. All submittals shall include certifications for all subcontractors. The A-E shall be responsible for ensuring that all subcontractors use and adhere to the SSHP/SSHP Addendum; subcontractors will not have separate SSHP's.

2.3 Field Investigations and Chemical Analysis

2.3.1 General

Upon approval of the Final Work Plan Addendum by the Corps, the Corps Project Manager will authorize the A-E to initiate the field investigations. The A-E shall conduct the field investigations in accordance with the approved Work Plan Addendum. If required, a modification to this delivery order will be issued to cover any scope changes (i.e., increased sampling/testing efforts) resulting from any revisions to the Work Plan Addendum required for its approval. If changes are required, the A-E should not proceed until receipt of the delivery order modification. The specific requirements of the field investigations are summarized below.

2.3.2 Permits and Access

Prior to the start of work, any and all permits, licenses, and clearances required to perform the site investigation shall be obtained by the A-E. Determining license and permit requirements shall be the responsibility of the A-E.

2.3.3 Surveying

All sampling locations shall be surveyed using GPS with an accuracy of ± 10 feet. Scaled maps showing sampling locations shall be included in the assessment report (see Section 2.4).

2.3.4 Chemical Analysis

Table 1 summarizes the chemicals and compounds as well as the criteria for which each water and soil sample will be tested. The samples will be collected using standard protocols for collecting samples at hazardous waste sites. A State of South Carolina certified laboratory shall be used for chemical analysis of the samples.

2.3.5 "Background" Soil and Sediment Samples

The A-E shall collect three soil samples from Taylor's Island (see Figure 3) using a hand auger (or other similar equipment) and three sediment samples from a "natural sediment trap" several miles upstream of Lake Conestee. This "natural sediment trap" should be from an area of natural sediment deposition where the sediment has no signs of significant human impact. Each soil sample should be collected from a depth of 6 inches to 12 inches and should be collected from random areas on the island that have no signs of significant human impact. These samples should be analyzed for TAL metals. The objective of this sampling is to estimate the normal levels of metals in the regional soils/sediments. This "normal level" will be used to assist in identifying areas of Lake Conestee where the sediments contain elevated levels of metals.

2.3.6 Fish Tissue Sampling

The A-E shall collect fish tissue samples (i.e., fillets) from several beaver dam impoundments within Lake Conestee (see Figure 3). A minimum of ten fish should be collected from the beaver impoundments. Tissue from these fish should be analyzed for PCBs, organo-chlorine pesticides, and TAL metals. The objective of this sampling is to determine the contaminant levels in the Lake Conestee fish.

2.3.7 Sediment and Surface Water Samples from Un-sampled Areas

The A-E shall collect sediment and surface water samples from two areas of Lake Conestee that were not sampled during the previous phase of the Targeted Brownfields Assessment. The areas to be sampled are shown on Figure 3 and include the Marrow Bone Creek delta area and the upstream areas of the lake. Fifteen shallow sediment samples and five surface water samples should be collected from the West Bay area. Ten shallow sediment samples and five surface water samples should be collected from the upstream areas of the lake. At both areas, when a surface water sample is collected, a sediment sample should be collected at the same location. These samples should be analyzed for TAL metals, PCBs, organo-chlorine pesticides, and PAHs.

Figure 3: Sampling Areas

In addition, 20% of the samples should be analyzed for volatile organic compounds and full suite semi-volatile organic compounds. The objective of this sampling is to characterize the areas of Lake Conestee that were not sampled during the previous phase of the Targeted Brownfields Assessment.

2.3.8 Sediment and Surface Water Samples from “New Exposure Areas”

The “full pool” condition of the lake is a changed condition since the previous phase of the Targeted Brownfields Assessment; therefore, sediment and surface water sampling should be conducted at random areas around the lake that reflects the changed conditions. The A-E shall collect 25 shallow sediment samples and 10 surface water samples at various locations around the lake. The exact location of these samples will be determined during the Field Work Review Meeting (see Paragraph 2.5). At all sampling areas, when a surface water sample is collected, a sediment sample should be collected at the same location. These samples should be analyzed for TAL metals, PCBs, organo-chlorine pesticides, and PAHs. The objective of this sampling is to determine if the changed condition of the lake has changed the contamination profile. Analysis of these sediments for volatile organic compounds and full suite semi-volatile organic compounds is not necessary because previous sampling has shown that these compounds do not present an exposure risk.

2.4 Preparation of Assessment Report

The A-E shall prepare a report on the findings of the field work. The report shall describe all field activities; provide the results of the soil, sediment, surface water, and fish sampling that was performed; and provide interpretations of the data obtained from the field work. Site plans that clearly show all of the sampling points shall also be included. The following information should also be included in the report:

- The A-E shall perform a limited evaluation of the fate and transport of detected contaminants. The assessment should cover each potential pathway of transport determined to be applicable to the site. The fate and transport assessment should support the site conceptual model and the human health and environmental evaluation.
- The A-E shall make a limited evaluation of the potential for human health and environmental impacts at the site. This evaluation shall provide an analysis and discussion of the following elements: chemicals of concern, exposure assessment, toxicity assessment, and uncertainty analysis. This evaluation should include a comparison of the detected contaminant levels to U.S. Environmental Protection Agency and South Carolina Department of Health and Environmental Control risk assessment levels.

Draft and Final versions of the report (5 copies of each version) shall be submitted to the Corps for review and approval. The Draft and Final versions of the report shall be furnished with a professional certification signed by a registered geologist or engineer, as required by the State of South Carolina.

2.5 Meetings and Conferences

The A-E is expected to attend the following meetings:

- Field Work Review Meeting (at Greenville, South Carolina)
- Public Availability Meeting (at Greenville, South Carolina)

The field work review meeting will be held after review of the draft Work Plan. The public availability meeting will be held after the final report. The purpose of the public availability meeting will be to inform the local citizenry surrounding Lake Conestee of the results of the investigation.

2.6 Investigation Derived Waste (IDW) Management

The A-E should follow the following protocol for handling IDW:

- Soil cuttings resulting from collection of soil/sediment samples should be discarded on-site near their source.
- Water IDW resulting from decontamination of equipment (i.e., “decon” water) should be collected and temporarily stored on-site (temporary storage not to exceed 45 days from completion of field work). The disposal requirements for the “decon” water should be confirmed by analyzing a sample of the water for organo-chlorine pesticides, PCBs, TAL metals, volatile organic compounds, and full suite semi-volatile organic compounds (see Table 1).

3.0 PROJECT MANAGEMENT

3.1 Project Team

The A-E shall assign a principal or key employee to serve as the A-E's project manager (PM) for this study. The A-E's PM shall oversee the coordination and execution of the entire project. The A-E shall assemble a team composed of personnel experienced in appropriate disciplines. The field work shall be conducted under the direct supervision of a Professional Geologist (PG) or Professional Engineer (PE) registered in the State of South Carolina who has experience with hazardous waste sites. All major submittals shall be signed by this individual.

3.2 Coordination and Points of Contact

The study point of contacts (POC) will be as follows:

U.S. Army Corps of Engineers, Charleston District:

Dennis McKinley, Project Manager

(843) 329-8052

Alan Shirey, Technical POC

(843) 329-8166

Joe Wilson, Contracting Officers Representative

(843) 329-8142

3.3 Project Schedule

The A-E shall adhere to the following schedule throughout the life of the project.

<u>Submittal and Action Item</u>	<u>Action By</u>	<u>Cumulative Calendar Days After NTP</u>
Submit Draft Work Plan Addendum	A-E	30
Review Draft Work Plan Addendum	Corps	45
Submit Final Work Plan Addendum	A-E	55*
Approve Final Work Plan Addendum	Corps	65*
Complete Field Work	A-E	125*
Submit Draft Assessment Report	A-E	170*
Review Draft Assessment Report	Corps	185*
Submit Final Assessment Report	A-E	195*
Approve Final Assessment Report	Corps	205*

* Number of days is subject to change if additional review time is required.

PROJECT REVIEW COMMENTS

Date: Aug 26, 2002

Page 1 of 3

To: Zapata Engineering (Greg Hippert)

From: ALAN SHIREY

Project and Location: Lake Conestee Brownfields Targeted Assessment Follow-up Investigation – Draft Work Plan; Greenville, South Carolina

Cmnt No.	Drawing No. or Par. No.	Comments	Review Action
1	Work Plan Para 5.1.1, pg 9 & FSAP Para 4.1, pg A-12	<p>I disagree with the locations chosen for the background sediment samples.</p> <p>I thought that the reason for this sediment sampling was to determine the expected natural levels of metals in the Lake Conestee sediments if there had been no human impact (i.e., just sedimentation). The chosen sediment sampling locations only have one location that will give us definitive information for these natural levels. The locations for samples 2 and 3 are from areas that have expected/known human impact and thus will not be useful in determining the expected natural levels of metals. Making decisions based on one background sample is "dangerous" statistically.</p> <p>The locations for samples 2 and 3 will provide interesting information, but I'm not sure it will be useful information for achieving our goal.</p> <p>How will these background sediment samples be collected? Will several samples be collected from each "sediment pool" with subsequent homogenization and then one sample from the homogenized sediment being sent for analysis? OR Will only one grab sample be collected from each "sediment pool" with no homogenization? If we stay with the current background sediment sampling protocol, then the homogenization method will be better statistically.</p>	
2	Work Plan Para 5.1.2, pg 10 & FSAP Para 4.7, pg A-13 thru A-14.	<p>What species of fish will we be "targeting" for analysis?</p> <p>We previously had some discussion about the best locations for collecting fish that would have been subject to long-term exposure to the conditions of Lake Conestee. I'm not sure we ever reached a consensus agreement on this subject. Do we feel that the fish in the East Bay and the South Bay will be representative of fish that have received long-term exposure?</p>	
3	Work Plan Para 5.1.4, pg 12 & FSAP Para 4.1, pg A-11	<p>I know we debated this subject a lot during development of the Scope of Work, but I'm not sure I fully understand the usefulness of all of the surface water and sediment samples in the East Bay and the South Bay.</p> <p>CONTINUED</p>	

PROJECT REVIEW COMMENTS (Continuation Sheet)			Date: August 26, 2002	Page 2 of 3
Project and Location: Lake Conestee Brownfields Targeted Assessment Follow-up Investigation – Draft Work Plan			SHIREY	
Item No.	Drawing No. or Par. No.	Comments	Review Action	
3 Cont'd	Work Plan Para 5.1.4, pg 12 & FSAP Para 4.1, pg A-11	Perhaps we should delete some of these samples and either realize a cost savings or perform some additional sampling elsewhere (e.g., more fish sampling or additional background sediment sampling).		
4	FSAP Para 4.1, pg A-11	In the Lake Conestee Surface Water paragraph the sample numbers for the East Bay and the South Bay are switched. The East Bay should be 6 and the South Bay should be 3. Also, see comment #3 above about changing these sample quantities.		
5	QAPP Para 3.5, pg B-10 thru B-11 & Table 1	In the third subparagraph of Paragraph 3.5 there is a discussion about collecting field blanks at a rate of "one per sampling round per matrix." Table 1 does not reflect the collection and analysis of any field blanks. Are there plans for collecting field blanks for this project? I don't think field blanks are necessary. In the fourth subparagraph of Paragraph 3.5 the rate of collecting field duplicates is listed as "1 per 20 samples per matrix." Table 1 reflects collecting the field duplicates at a rate of 1 per 10 samples per matrix.		
6	Work Plan Para 3.0, Pg 5	In the bullet statements that summarize the results of the previous investigation we state that regulatory levels were exceeded for "X" specific chemicals. These statements make Lake Conestee sound much worse than I believe it really is. I certainly am not advocating that we downplay any contaminant levels associated with Lake Conestee, but I also don't want to overly alarm the public. I'm not sure of a better way of wording this, but I think we need to clarify these statements to put them into a better perspective.		

7	SSHP Para 2.5, pg 4 & Para 2.8, pg 6	Both of these paragraphs discuss subcontractor safety issues. Although I know that our use of subcontractors is very limited for this project, the wording of these paragraphs gives me the impression that subcontractor safety is the responsibility of the individual subs. This SSHP applies to the main contractor and all subcontractors working on the project and it's the Health and Safety Officer's responsibility to ensure compliance with the SSHP.	
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**PROJECT REVIEW COMMENTS
(Continuation Sheet)**

Date: August 26, 2002

Page 3 of 3

Project and Location: Lake Conestee Brownfields Targeted
Assessment Follow-up Investigation – Draft Work Plan

SHIREY

Item No.	Drawing No. or Par. No.	Comments	Review Action
8	SSHP Para 4.1, pg 10	In the "Exclusion Zone" paragraph there is reference to setting up the exclusion zone "approximately 25 feet around the backhoe bucket." I don't believe there is any backhoe work planned for this project. Please correct accordingly.	
9	SSHP Para 5.2, pg 12	Insect bites are included in the list of hazards associated with sample collection. Are any special precautions necessary for West Nile virus?	
10	General	<p>The following editorial comments are provided:</p> <p>Work Plan Paragraph 1.0, page 1: For completeness, the upstream background sediment samples should be briefly mentioned in the "bullets."</p> <p>Work Plan Paragraph 2.1, page 2: For correctness, the reference to "Section 206 of the Water Resources Development Program" at the end of the first subparagraph should be "Section 206 of the Water Resources Development Act of 1996."</p> <p>Work Plan Paragraph 6.2, page 16: For completeness, please add EPA to the list of agencies/organizations that will be assisting us in communicating the results with the public.</p>	

Public Involvement in the Targeted Brownfields Assessment Program

The Brownfields program was initiated in the early 1990s to turn abandoned or underutilized commercial or industrial sites into new factories, businesses, or other uses such as greenspaces. These areas were thought to be contaminated properties and redevelopment of them was preferential to disturbing unspoiled lands ('greenfields'). With the passage of new Brownfields legislation this year, the scope of eligible contaminated properties has broadened.

The U.S. Environmental Protection Agency (EPA) believes that community-based planning and involvement is integral to the Brownfields program. The potential success of a project is evidenced in a strong commitment by local stakeholders to redevelop the targeted property. EPA evaluates this commitment in the grant proposals which must document the community's interest in the reuse of the property. Examples of the community-based organization which the Agency likes to see included are local citizen groups, environmental organizations, civic organizations, local business groups, educational institutions, and local labor organizations.

The public does have a role in the redevelopment process of a Brownfield site. Federal, state, and local regulators have authority and expertise to make decisions in certain stages of the site assessment and cleanup. However, the value of public's input is recognized and they are articulated in these core values to which EPA subscribes:

- people should have a say in decisions about actions that affect their lives;
- public participation includes the promise that the public's contribution will influence the decision;
- the public participation process communicates the interests and meets the needs of all the participants;
- the public participation process seeks out and facilitates the involvement of those who are potentially affected;
- the public participation process involves citizens in defining how they participate;
- the public participation process communicates to participants how their input was or was not used; and
- the public participation process provides participants with the information they need to participate in a meaningful way.

EPA will participate in a public meeting in early 2003 with the other agencies involved in the Lake Conestee assessment. However, if you have any questions about the project, you may contact the EPA Project Officer, Mr. Mickey Hartnett, at 404-562-8661.

e-mailed to MH on 10-1-02

Public Involvement in the Targeted Brownfields Assessment Program

The Brownfields program was initiated in the early 1990s to turn abandoned or underutilized commercial or industrial sites into new factories and businesses. These areas were thought to be contaminated 'inner city' properties and redevelopment of them was preferential to disturbing unspoiled lands ('greenfields'). With the passage of new Brownfields legislation this year, the scope of eligible contaminated properties has broadened as has the acceptable endpoint for economic redevelopment. For example, conversion to residential housing and greenspace are now legitimate projects for Brownfields funding.

The U.S. Environmental Protection Agency (EPA) believes that community-based planning and involvement is integral to the Brownfields program. While there is no statutory requirement for public participation, the potential success of a project is evidenced in a strong commitment by local stakeholders to redevelop the targeted property. EPA evaluates this commitment in the grant proposals which must document the community's interest in the reuse of the property. Examples of the community-based organization which the Agency likes to see included are local citizen groups, environmental organizations, civic organizations, local business groups, educational institutions, and local labor organizations.

The public does not have a role in all the decisions in the redevelopment process of a Brownfield site. Federal, state, and local regulators have authority and expertise to make decisions in certain stages of the site assessment and cleanup. However, the value of public's input is recognized and they are articulated in these core values to which EPA subscribes:

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Public Involvement in the Targeted Brownfields Assessment Program

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The public does have a role in the redevelopment process of a Brownfield site. Federal, state, and local regulators have authority and expertise to make decisions in certain stages of the site assessment and cleanup. However, the value of public's input is recognized and they are articulated in these core values to which EPA subscribes:

- people should have a say in decisions about actions that affect their lives;
- public participation includes the promise that the public's contribution will influence the decision;
- the public participation process communicates the interests and meets the needs of all the participants;
- the public participation process seeks out and facilitates the involvement of those who are potentially affected;
- the public participation process involves citizens in defining how they participate;
- the public participation process communicates to participants how their input was or was not used; and
- the public participation process provides participants with the information they need to participate in a meaningful way.

EPA will participate in a public meeting in early 2003 with the other agencies involved in the Lake Conestee assessment. However, if you have any questions about the project, you may contact the EPA Project Officer, Mr. Mickey Hartnett, at 404-562-8661.

*Sent to Dave
Hargrett for Conestee
Foundation newsletter*



"Angela K. Gorman"
<GORMANAK@COLU
MB34.DHEC.STATE.SC
.US>

To: Jeanette Samaritan/R4/USEPA/US@EPA

cc:

Subject: Re: Lake Conestee Newsletter

10/03/2002 10:46 AM

Jeanette,

Thanks for sending the info on public involvement. I looked it over and also ran it by Gail Jeter, our Brownfields coordinator and Karen Sprayberry who handles public involvement for the DHEC Superfund program. We think the document looks good and covers the state's objectives for public involvement at TBA sites as well. I look forward to working with you on the Lake Conestee project.

Thanks,
Angela

Angela Gorman, Hydrogeologist
Division of Site Assessment and Remediation
Bureau of Land and Waste Management
South Carolina Department of Health and Environmental Control
2600 Bull Street
Columbia, SC 20201
Phone 803-896-4121
FAX 803896-4292

>>> <Samaritan.Jeanette@epamail.epa.gov> 10/01/02 04:06PM >>>

Angela,

I am replacing Michelle Cook on Lake Conestee. Please read the attached document on public involvement in the TBA program. If you would like to make any changes or edits, please forward them to me.

Thank you,
Jeanette

Jeanette M. Samaritan, Ph. D.
Brownfields Project Manager
U.S. Environmental Protection Agency
Waste Division, 10th Floor
61 Forsyth Street, S.W.
Atlanta, GA 30303-8960
404-562-8686
404-562-8512 (FAX)
samaritan.jeanette@epa.gov

uea jms
9/13/02



THE PINNACLE CONSULTING GROUP

05 September 2002

Ms. Michelle Cook
U.S. Environmental Protection Agency
Sam Nunn Atlanta Federal Center
61 Forsyth St.
Atlanta, GA 30303

Subject: Lake Conestee Briefing

Dear Michelle:

Enclosed is a CD with two ppt files. One file is the presentation that we put together for you on 20 August. The other is simply a collection of random and representative digital photo scenes from Lake Conestee showing a variety of conditions.

Thanks so much for coming up for the briefing two weeks ago, and for your input to the work plan meeting last week. The plan revisions have gone in and you should be seeing your copy shortly. I believe we now have a very strong 2nd phase of sampling activity planned now, from which we can derive valuable information and answer a lot of questions.

One item that I believe you committed to provide me is a short piece for the community newsletter on the public involvement process in the TBA program. I think you also indicated you would provide us with a copy of whatever guidance is available on what is specifically required for public involvement pursuant to the Foundation's agreement with EPA.

*emailed from
michelle*

*Mailed
9-24-02*

Please call if you have any questions. Otherwise, I'll keep you advised on schedule, should you want to come up for the field sampling activities.

On behalf of The Conestee Foundation,

David L. Hargett, Ph.D.
Consultant to the Conestee Foundation

Enclosure

cc: Alan Shirey, via email, w/o enclosure
Angela Gorman, " "
Dana Leavitt " "
Jerry Wylie " "

DECISION SUPPORT THROUGH KNOWLEDGE AND TECHNOLOGY

Jeanette Samaritan

10/01/2002 10:14 AM

To: Dave Hargett <dhargett@pincongrp.com>

cc: Mickey Hartnett/R4/USEPA/US@EPA

Subject: Re: Attached DRAFT re: TBA#2 - for Conestee Newsletter



Dave,

The one comment we have relates to the opening sentence in the first paragraph. It states that there is a legal agreement with SCDHEC, EPA and the Foundation. Please correct this sentence to show that the agreement (the Voluntary Cleanup Contract) is not with EPA, but only with SCDEHC.

You should receive the short piece on public involvement that you requested before the end of the week.

Thank you for the opportunity for review.

Jeanette

Author: Dave Hargett

DRAFT
DRAFT
DRAFT

Additional Environmental Testing to be Performed on Lake Conestee

Under a legal agreement with the South Carolina Department of Health and Environmental Control, ~~and the U.S. Environmental Protection~~ the Conestee Foundation is required to conduct studies on Lake Conestee. These studies are being conducted under U.S. EPA's Targeted Brownfields Assessment program, a part of the federal Superfund program. These studies are intended to give us, and the agencies, the information we need to better understand the contamination in the lake and how best to manage it. The information derived from these studies are being used to address two critical questions:

- 1) Does the contamination pose a threat to the health and safety of the people in the surrounding community?
- 2) What are the effects of the contamination, if any, on the wildlife and the environment?

During late 1999, the first round of sampling activities were conducted in Lake Conestee and in the Reedy River downstream of the lake. The technical sampling studies were conducted by Pinnacle Consulting Group of Greenville, under contract to SCDHEC. Samples of sediments in the lake and river bottom were collected as well as water samples for analysis. This round of testing was intended to give us the first "snapshot" of what was in the sediments.

The results of the testing confirmed what had long been suspected. The sediments in Lake Conestee, as well as the Reedy River downstream, are contaminated with a wide variety of chemicals. These chemicals likely came from a long-history of industrial and waste treatment activities in the Greenville area upstream. The contaminants are not unusual for environments like Lake Conestee, as reflected in similar studies elsewhere around the U.S. The types of contaminants included metals (such as chromium, lead, zinc, and copper), organic compounds, pesticides, PCBs, and nutrients. These are all compounds used extensively by our society through the 20th century. Generally, these are compounds that have a strong tendency to "stick to" the soil particles in the sediments and to stay there. This is good in that the contaminants are not available to the surrounding ecosystem.

While the sediments were found to contain a range of contaminants, the water overlying the sediments contained very little contamination by comparison. This confirms the characteristic of the contaminants to be "tied up" in the sediments.

Based on the results of the initial testing experts from the U.S. EPA and SCDHEC carefully examined the data and reported that there are no health concerns for citizens living in the community during typical, ordinary daily activities. Still, to err on the side of precaution, the agencies advise against extended skin contact with the sediments.

It is recommended that people should avoid extended skin contact with the sediments in Lake Conestee until additional information is known about the contamination of the lake.

Now the Conestee Foundation is embarking on the second round of sampling under the Targeted Brownfields program. This phase of work is being led by the U.S. Army Corps of

Dave Hargett
requested review of the
article for their newsletter
my questions are in the margin
Janet

we have no
legal agreement
you still refer
the program
this way?
-15 OK

I couldn't
find an
"official" E
determiner
there was
a Toxicology
Review.

Engineers – Charleston District, under agreement with U.S. EPA which is funding the work. This time the study will focus on areas of the lake not sampled previously. The lake is rather large for a study of this type, 145 acres, so all of it could not be sampled during round one. So, this time sampling will be focused on the current shoreline zones where people might be exposed to the sediments through fishing or other recreational activities, and areas in the northern and western portions of the lake not previously sampled. The sampling activities will also include collection of fish for tissue analysis. Information from the analysis of the fish will help address the obvious questions regarding the consumption of fish from the lake. This information will also help us begin to address questions regarding the impacts of the contaminants on wildlife.

The field activities for this round of testing will be conducted during October-November. This testing will also be conducted by Pinnacle Consulting Group, and Zapata Engineering, under contract to the Corps of Engineers. After the results are in and analysis is completed, the Conestee Foundation and the agencies will hold a public meeting in the Conestee community to present the results. That meeting will likely be in the early spring of 2003.

If you have any questions about the testing at Lake Conestee please contact the Conestee Foundation at our phone number, email address, or send us a letter, and we will make sure your concerns or questions are addressed.

True?
Yes
or SC-DHEC?

DRAFT
DRAFT
DRAFT

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I couldn't find an "official" EPA determination

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you still refer the program its way?

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True?

If you have any questions about the testing at Lake Conestee please contact the Conestee Foundation at our phone number, email address, or send us a letter, and we will make sure your concerns or questions are addressed.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

SEP 26 2002

Mr. Alan D. Shirey
U.S. Army Corps of Engineers
Charleston District
69A Hagood Avenue
Charleston, SC 29403-5107

SUBJECT: Lake Conestee Targeted Brownfields Assessment
Interagency Agreement #DW96-94-5817

Dear Mr. Shirey:

I am approving the Work Plan Addendum received on September 10, 2002, for the follow-up investigation on Lake Conestee, SC. Based on the cost estimate provided on May 23, 2002, I understand the work will cost \$97,319.14, leaving a balance of \$12,866.85.

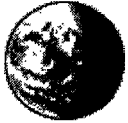
Please contact me at 404-562-8661 if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Mickey Hartnett", is written over a horizontal line.

Mickey Hartnett
Brownfields Coordinator

cc: Stan Kinmonth, USACE
J.M. Samaritan, EPA



"Shirey, Alan D SAC"
<Alan.D.Shirey@USAC
E.ARMY.MIL>

08/27/2002 03:46 PM

To: "Angela K. Gorman (E-mail)"
<GORMANAK@COLUMB34.DHEC.STATE.SC.US>, "Dave Hargett
(E-mail)" <dhargett@pincongrp.com>, "Dana Leavitt (E-mail)"
<dleavitt@upstateforever.org>, "Brad Kuntz (E-mail)"
<bkuntz@zapeng.com>, Michelle Cook/R4/USEPA/US@EPA, "Jerry
Wylie (E-mail) (E-mail)" <jwylie@pincongrp.com>, "Greg Hippert
(E-mail)" <ghippert@zapeng.com>
cc: "McKinley, Dennis SAC" <Dennis.McKinley@usace.army.mil>
Subject: Meeting Agenda

To the Lake Conestee Team:

The agenda for tomorrow's meeting is attached.

Alan.

Alan Shirey

Lead Environmental Engineer
U.S. Army Corps of Engineers, Charleston District
69A Hagood Ave.
Charleston, SC 29403-5107
(843) 329-8166



<<Lake Conestee Brownfields Agenda.DOC>> Lake Conestee Brownfields Age

Lake Conestee, Greenville South Carolina

Brownfields - Round II, Phase II

DATE SCHEDULED: 28 August 2002 **START TIME:** 10:30 **END TIME:** 12:35

LOCATION: SCDHEC Appalachia II, District Office, Greenville, Suite 5800

PURPOSE: To review Draft Work Plan Addendum.

Agenda

ITEMS TO BE DISCUSSED	LED BY	START TIME
✓ 1. Opening Remarks	Dennis McKinley (others)	10:30 (10 minutes)
✓ 2. Distribution of Comments Received	Dennis McKinley	10:40 (5 minutes)
✓ 3. Corps Safety and Occupational Health Manager Comments	Alan Shirey	10:45 (10 minutes)
4. Corps Project Manager Comments	Dennis McKinley	10:55 (15 minutes)
5. SCDHEC Comments	Angela Gorman	11:10 (20 minutes)
6. Corps Environmental Resources Comments	Alan Shirey	11:30 (20 minutes)
7. USEPA Comments	Michelle Cook	11:50 (10 minutes)
8. Lake Conestee Foundation Comments	Dana Leavitt	12:00 (15 minutes)
9. Wrap-up of all Comments	Alan Shirey	12:15 (10 minutes)
10. Zapata Direction	Dennis McKinley	12:25 (10 minutes)
11. Adjourn		12:35

Public involvement

Notes: from Scope of Work – April 29, 2002. The A-E shall assume all responsibility for the accuracy and completeness of the work and services for the described project. The A-E shall not modify, add, delete, or change in any way the instructions stated in this scope of work without obtaining written approval from the Contracting Officer. Should the A-E receive any directions or instructions that are beyond this Scope of Work, the A-E shall notify the Contracting Officer in writing describing the changes and impact on the effort within 10 calendar days. The change(s) and impact on the work effort shall be described in sufficient detail such that the Government can fully assess the impacts on the project. The A-E should not proceed with such directions or instructions until receipt of a modification to this Scope of Work.



"McKinley, Dennis
SAC"
<Dennis.McKinley@us
ace.army.mil>

10/02/2002 10:53 AM

To: "Shirey, Alan D SAC" <Alan.D.Shirey@USACE.ARMY.MIL>

cc: Michelle Cook/R4/USEPA/US@EPA, Mickey
Hartnett/R4/USEPA/US@EPA, "Kinmonth, Stan A SAJ"
<Stan.A.Kinmonth@saj02.usace.army.mil>, Jeanette
Samaritan/R4/USEPA/US@EPA

Subject: Lake Conestee Work Plan Addendum

Alan,

per your note this morning re: Mickey's letter approving the Lake Conestee Work Plan Addendum.

Per conversation with Michelle Cook on 10 July 02, We issued the DO to Zapata based on adjusted price of \$97,829.42 instead of the \$97,319.14. This was done because we entered into the Second Option year on Zapata's Contract.

To date for the Corp's efforts we have been fully funded to accomplish tasks: \$10,000 for the SOW \$16,700 for:

Preparation of a Request for Proposal

Negotiation and Issuance of a Delivery Order to a Qualified AE

Safety Office Review of Site Safety and Health Plan

Corps Technical Team Member Participation in Task Order Negotiation and Proposal Review

Corps Review of Draft and Final Work Plan

Technical Team Member attendance at Work Plan Review Meeting

Corps Technical Field Work Monitoring

Corps Review of Draft and Final Report

Corps Technical Team Member Attendance at Public Availability Meeting

Corps Project Management and Oversight / and Funds Processing

and \$97,320. for a total of \$124,020.

Thanks



Dennis Clear Day Bkgrd.JPG



Alan.D.Shirey@USACE
.ARMY.MIL

10/22/2002 09:32 PM

To: dhargett@pincongrp.com

cc: Dennis.McKinley@usace.army.mil, jwylie@pincongrp.com,
ghippert@zapeng.com,
GORMANAK@COLUMB34.DHEC.STATE.SC.US, Jeanette
Samaritan/R4/USEPA/US@EPA

Subject: RE: Background Sediments & Soils - Lake Conestee TBA

Dave,

Based on your descriptions of the sites, they sound OK to me.

Greg had previously told me (via e-mail) that the 31st would probably be the best day for my site visit. I tried to call Jerry earlier today to arrange the details, but I haven't heard back from him yet.

Alan.

-----Original Message-----

From: Dave Hargett [<mailto:dhargett@pincongrp.com>]

Sent: Tuesday, October 22, 2002 2:11 PM

To: Alan Shirey

Cc: Dennis McKinley; Jerry Wylie; Greg Hippert

Subject: Background Sediments & Soils - Lake Conestee TBA

Importance: High

Alan

Jerry and I did a reconnaissance for the background sediment sampling sites several days ago.

Per the Work Plan we attempted to identify background sediment samples reflecting true

background conditions not impacted by industrial, commercial, municipal, residential or other

anthropomorphic activities. This is obviously not an easy task in the highly urbanized Reedy watershed.

We did locate a site in the proposed Area 1 that is within the proposed sub-watershed sampling area near the head of the Reedy River.

The proposed sampling site for sample Area 2 designated for is slightly north of the area

originally proposed. This is in order to locate the sample in a more pristine foothills environment, away from man-induced influences.

We were not able to find an "uninfluenced" site in the Area 3 subwatershed (Long Branch

Creek) due to the high density of commercial and residential development, which we feel would

compromise the representativeness of sediment in that locale. As an alternative, we were able

to identify a relatively pristine spring and stream in the headwaters of a tributary to Brushy Creek,

about 4 miles further south, also on the west side of the watershed.

The locations of these three recommended sample locations is represented in the attached figure.

We strongly recommend using these three sample sites for the background sediment sampling

locations. These locations will very effectively represent the range and variations of geologic

materials manifested in sediments from the Reedy basin, above Lake Conestee, as they are well

triangulated about the top, east, and southwest portions of the basin.

Using these three locations for background sediment, will satisfy the objectives of the background

samples, and will not constitute any change in number of samples, scope, analytical requirements,

or level of effort. Hence, these recommended locations will not impact on the project budget.

After you have reflected on this recommendation, please contact either me or Jerry (email is

fine) to approve or to discuss.

We are obviously preparing to initiate the sampling activities next week, so please coordinate

with Jerry if you want to do a site visit while we are active next week.

Thanks,

Dave Hargett

-----Original Message-----

From: Michael Davis [<mailto:mdavis@pincongrp.com>]

Sent: Thursday, October 17, 2002 12:04 PM

To: Dave Hargett; Jerry A. Wylie

Subject: figure6.pdf



Michelle Cook

09/12/2002 02:12 PM

To: Jeanette Samaritan/R4/USEPA/US@EPA

cc:

Subject: Re: Lake Conestee

I don't think I forwarded it.

Michelle M. Cook
Phone (404) 562-8674
Fax (404) 562-8063
Jeanette Samaritan

Jeanette Samaritan

09/12/2002 02:11 PM

To: Michelle Cook/R4/USEPA/US@EPA

cc:

Subject: Lake Conestee

Could you tell me if you forwarded SEDS a copy of the QAPP and sampling plan to review or if it was determined that that step was unnecessary.

Thanks,
Jeanette

Michelle explained that SEDS is swamped and
wouldn't have time to review new workplans.
She felt that Angela Gorman at SEDS has
done a very thorough job of reviewing
earlier versions.

Jmo
9/12/02



"Shirey, Alan D SAC"
<Alan.D.Shirey@USAC
E.ARMY.MIL>

To: Jeanette Samaritan/R4/USEPA/US@EPA

09/20/2002 12:35 PM

cc:
Subject: RE: Greenville County species list

Jeanette,

We have not discussed threatened/endangered species in regards to the Lake Conestee Brownfields project. However, the Corps has a separate Lake Conestee project under our Civil Works aquatic ecosystem restoration program. In support of the NEPA effort for this separate project, we have looked at threatened/endangered species at Lake Conestee. There are no known threatened/endangered species at Lake Conestee; although, a detailed survey has not been performed.

Does this answer your question?

Alan.

-----Original Message-----

From: Samaritan.Jeanette@epamail.epa.gov
[mailto:Samaritan.Jeanette@epamail.epa.gov]
Sent: Friday, September 20, 2002 9:50 AM
To: alan.d.shirey@usace.army.mil
Subject: Greenville County species list

Was anything discussed about the presence/absence of Federal/State endangered or threatened species at this project site? Seems there is a possibility.

----- Forwarded by Jeanette Samaritan/R4/USEPA/US on 09/20/2002 09:48 AM

Sandy_Abbott@fws.
gov To: Jeanette Samaritan/R4/USEPA/US@EPA
cc:
09/17/2002 10:42 AM Subject: Greenville County species list

As Roger mentioned to you we have no site specific date, however we do



Sandy_Abbott@fws.gov
v

To: Jeanette Samaritan/R4/USEPA/US@EPA

09/17/2002 10:42 AM

cc:

Subject: Greenville County species list

As Roger mentioned to you we have no site specific date, however we do provide individuals with a list of species that could potentially occur in the area by county. I am attaching a species list for Greenville County for your use.

(See attached file: GreenvilleCounty.wpd)

----- Forwarded by Sandy Abbott/R4/FWS/DOI on 09/17/2002 10:46 AM -----

Paula Sisson

Abbott/R4/FWS/DOI@FWS

To: Sandy

09/16/2002 11:51
AM

cc:
Subject: ESAs

Sandy,

Could you respond to this person? I was going to send her a list, however, I thought there may be other concerns I am not familiar with.

Thanks, Paula
Paula T. Sisson
General Biologist
Charleston Field Office
176 Croghan Spur Road, Suite 200
Charleston, SC 29407
Phone: 843-727-4707 (ext. 18)
Fax: 843-727-4218
E-mail: paula_sisson@fws.gov

----- Forwarded by Paula Sisson/R4/FWS/DOI on 09/16/2002 11:50 AM -----

Roger Banks

Sisson/R4/FWS/DOI@FWS

To: Paula

09/12/2002 11:48
AM

cc:
Subject: ESAs

Paula:

Will you please respond to this request? I already told her that we probably don't have any site specific data. I did tell her, however, that we can provide her a county list of the species that could occur in the area she's interested in. Thanks.

Roger

----- Forwarded by Roger Banks/R4/FWS/DOI on 09/12/2002 11:51 AM -----

Samaritan.Jeanette@epam
ail.epa.gov

To:

- E Federally endangered
- T Federally threatened
- P Proposed in the Federal Register
- CH Critical Habitat
- C The U.S. Fish and Wildlife Service or the National Marine Fisheries Service has on file sufficient information on biological vulnerability and threat(s) to support proposals to list these species
- S/A Federally protected due to similarity of appearance to a listed species
- SC Federal Species of concern. These species are rare or limited in distribution but are not currently legally protected under the Endangered Species Act.
- * Contact the National Marine Fisheries Service for more information on this species

These lists should be used only as a guideline, not as the final authority. The lists include known occurrences and areas where the species has a high possibility of occurring. Records are updated continually and may be different from the following.

Greenville

<u>Common Name</u>	<u>Scientific Name</u>	<u>Status</u>	<u>Occurrences</u>
Bog turtle	<i>Clemmys muhlenbergii</i>	T S/A	Known
Swamp-pink	<i>Helonias bullata</i>	T	Known
Dwarf-flowered heartleaf	<i>Hexastylis naniflora</i>	T	Known
Small whorled pogonia	<i>Isotria medeoloides</i>	T	Known
Bunched arrowhead	<i>Sagittaria fasciculata</i>	E	Known
Mountain sweet pitcher-plant	<i>Sarracenia rubra ssp. jonesii</i>	E	Known
White irisette	<i>Sisyrinchium dichotomum</i>	E	Known
Rock gnome lichen	<i>Gymnoderma lineare</i>	E	Known
White fringeless orchid	<i>Platanthera integrilabia</i>	C	Known
Green salamander	<i>Aneides aeneus</i>	SC	Known
Wren, Appalachian Bewick's	<i>Thryomanes bewickii altus</i>	SC	Known
Oconee-bells	<i>Shortia galacifolia</i>	SC	Known
Piedmont ragwort	<i>Senecio millefolium</i>	SC	Known
Rafinesque's big-eared bat	<i>Corynorhinus rafinesquii</i>	SC	Known
Southeastern myotis	<i>Myotis austroriparius</i>	SC	Known
Southern Appalachian woodrat	<i>Neotoma floridana</i>	SC	Known
	<i>haematoreia</i>		
Sweet pinesap	<i>Monotropsis odorata</i>	SC	Known
Butternut	<i>Juglans cinerea</i>	SC	Possible



Sandy_Abbott@fws.gov
v

To: Jeanette Samaritan/R4/USEPA/US@EPA

09/17/2002 10:42 AM

cc:

Subject: Greenville County species list

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To: Sandy

09/16/2002 11:51
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cc:
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General Biologist
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Phone: 843-727-4707 (ext. 18)
Fax: 843-727-4218
E-mail: paula_sisson@fws.gov

----- Forwarded by Paula Sisson/R4/FWS/DOI on 09/16/2002 11:50 AM -----

Roger Banks

Sisson/R4/FWS/DOI@FWS

To: Paula

09/12/2002 11:48
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Subject: ESAs

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Roger

----- Forwarded by Roger Banks/R4/FWS/DOI on 09/12/2002 11:51 AM -----

Samaritan.Jeanette@epam
ail.epa.gov

To:

Jeanette Samaritan

09/12/2002 10:13 AM

To: roger_banks@fws.gov

cc: (bcc: Jeanette Samaritan/R4/USEPA/US)

Subject: ESAs

Roger,

As a follow-up to our conversation this morning, I am requesting any information on federally-listed endangered and threatened species at a specific site. The locale of concern is Lake Conestee and environs on the Reedy River in Greenville County, SC.

If you have published any Federal Register notices with information that pertains to any species which you may identify for me, please list the citations or transmit copies to me for my reference.

Thank you for your assistance.

Jeanette

Jeanette M. Samaritan, Ph. D.
Brownfields Project Manager
U.S. Environmental Protection Agency
Waste Division, 10th Floor
61 Forsyth Street, S.W.
Atlanta, GA 30303-8960
404-562-8686
404-562-8518 (FAX)
samaritan.jeanette@epa.gov

Carol Moore:

↳ Karrie Jo Shell / Maryan Reltie
Michelle Glen has it

Lake Coneski, SC
COB / EPA funding

Gaps: Community Involvement
↳ summary of Meetings

Compare

Data Qual, Objectives to Current Scope of Work

✓ ESA species issues

Biol Evaluation under § 7 - 'no effect' determination
Private land & Waters of US

Lead them to make other associations for money

? Any hydraulic connection between old landfill & lake

? If withdrawal of cooling water downstream, how will
lake respond? Exposure of sediments?

? Was there pulp operation at mill using Cl₂?

? Textile operation

? Agriculture - cotton

Check for Taraphe

? Should have same 'due diligence' as Phase I/II audit?

? Can shallow lake provide fish habitat?

ATTACHMENT B

Data Quality Objectives for Lake Conestee Targeted Brownfield Assessment

Originally developed October 18, 2000, before implementation of Initial Phase of TBA

Updated October 5, 2001, after implementation of Initial Phase of TBA. Updated portions are written in *italics*.

Participants:

Mickey Hartnett	EPA	hartnett.mickey@epa.gov	404-562-8661
Angela Gorman	SCDHEC	gormanak@dhec.state.sc.us	803-896-4121
Jerry Wylie	Pinnacle	jwylie@pincongrp.com	864-467-0811 ext.120
Dave Hargett	Pinnacle	dhargett@pincongrp.com	864-467-0811 ext.113
Dennis McKinley	ACE	dmckinley@notes.sac.usace.army	843-329-8052
Alan Shirey	ACE	alan.d.shirey@sac01.usace.army.mil	843-329-8166

DQO Step 1 - State the Problems:

- 1) What is future threat to human health and the environment assuming recreational and educational use?
 - a) What is in sediment? *Partially addressed in Initial TBA. Still need to define and document constituents of concern based on available Initial TBA data. Remaining data needs include evaluation of quality of sediments exposed along the lake shoreline*
 - b) What is extent? *Distribution of contaminants appears to be across entire study area. Portions of the lake not addressed in Initial Phase will be addressed in next phase of assessment.*
 - c) What is surface water quality? *There appears to be minimal impact to surface water quality. Needs to be confirmed in next phase due to questions regarding turbidity in some samples.*
 - d) What is groundwater quality? *Groundwater quality assessment was limited to analysis of a single private well that showed no impacts to groundwater quality from contaminants present in the lake. No further groundwater sampling is planned.*
- 2) Is there a threat to downstream water and sediment quality? *Initial TBA results indicate substantially higher concentration of many constituents within Lake Conestee sediments than in Reedy River sediments downstream. Therefore, release of Lake Conestee sediments downstream would likely be a threat to downstream sediment quality. The closure of the dam gate in July 2001 substantially reduced the release of sediments downstream.*

DQO Step 2 - Identify the Decision:

- 1) Primary Decisions/Questions
 - a) Is lake area land and water safe for use by people for recreational and educational use? *Risk screening indicates that PAH, pesticides, metals are elevated above EPA Region IX Preliminary Remediation Goals in soil and sediment. Further evaluation is necessary to determine if these levels pose a risk for the intended use of the lake. Second Phase will evaluate shoreline sediments that pose a route of exposure for human contact. Second Phase will also include fish tissue analysis to evaluate human health risk from fish*

ingestion.

- b) Is area safe for fish/wildlife? *Ecological risk screening indicates that many constituents are well above ecological risk screening levels. Although not a primary focus of the Initial or Second Phase TBA, available data will continue to be used to evaluate ecological risk.*
- 2) Secondary Decisions/Questions
 - a) What is fate of sediments? *Since July 2001, release of sediments from the lake has been substantially reduced by closure of the dam gate.*
 - b) What is fate of the dam? *Gate has been closed. More permanent measures to control the dam are being evaluated.*
- 3) Possible Actions
 - a) Posting, Fishing restrictions. *Not warranted based on Initial TBA results. Need fish tissue data from second phase of assessment to determine need for fishing restrictions.*
 - b) Pursue PRPs, (How to pursue PRPs). *Not warranted at this time. Need to determine if intended use is appropriate with the contaminant levels present at the site and what corrective action measures if any are needed.*
 - c) Management of dam - COE - determine whether to repair water control structure. *Temporary closure of dam gate implemented in July 2001. Additional permanent measures are still being evaluated.*

DQO Step 3 - Identify Inputs to the Decision / Information Needed to Make Decision

- 1) Identify shallow sediment quality to evaluate risks to people and critters through contact. *Accomplished in Initial Phase but data is limited in applicability to human health risk because sample locations are now underwater. Second Phase will evaluate sediments exposed along lake shoreline to further evaluate human health risk. Second Phase will also address fish tissue analysis and areas of lake not addressed in Initial Phase - northern and western portion of lake, beaver impounded areas.*
- 2) Identify deep sediment (down to native rock/soil) quality to evaluate risks from potential release downstream. *Accomplished in Initial Phase. Concentration of some contaminants appears to increase with depth. Risk for release downstream reduced by closure of dam gate. Contaminant concentration with depth still an issue for uses of the site that may disturb buried sediments.*
- 3) Identify contaminant type and concentration. *Broad range of contaminants identified. Still need to define and document list of constituents of concern.*
- 4) Identify contaminant extent. *Initial TBA results indicate impact at all sediment sample locations.*
- 5) Ensure that data collection procedures are consistent between both phases of assessment so that results are comparable. *Initial TBA Sampling methods are documented in the Work Plan for Targeted Brownfields Assessment - Initial Phase, dated November 10, 2000 and the Initial Targeted Brownfields Assessment Report, dated March 8, 2001.*
- 6) Identify whether or not groundwater is impacted. *Groundwater quality assessment was limited to analysis of a single private well that showed no impacts to groundwater quality from contaminants present in the lake.*
- 7) Statistical analysis of data (need to identify appropriate statistical approach, source of info - Bill Davis, COE on assignment to EPA). *Not accomplished to date. May be part of*

- evaluation of data upon completion of Second Phase TBA.*
- 8) Establish background, from existing references and/or benchmark location at Taylors Island. *Evaluation of TBA results and necessary actions are to be risk driven and not dependent on background concentration.*
 - 9) Identify indicators (action level) for decisions. Indicators (action levels) to be identified through risk evaluation or screening rather than more rigorous risk assessment. *Applicable risk screening criteria are specified below:*
 - a) Exposed sediment (0-2 feet bgs): *EPA Region IX Preliminary Remediation Goals (Residential)*
 - b) Inundated sediment: *EPA Region IV Ecological Risk Assessment Bulletins-Supplement to RAGS (Sediment criteria)*
 - c) Soil(greater than 2 feet bgs): *EPA Region IV Ecological Risk Assessment Bulletins-Supplement to RAGS Screening Criteria for Soil, EPA Region IX Soil Screening Levels for Migration to Groundwater*
 - d) Surface Water: *EPA Region IV Ecological Risk Assessment Bulletins-Supplement to RAGS Freshwater Surface Water Screening Values, EPA Maximum Contaminant Levels*
 - 10) Estimate quantity of sediments that have or could be released downstream. Need lake profile and bathymetry info. *The Initial Targeted Brownfields Assessment Report states that the quantity of sediment released downstream is estimated to be 60,000 cubic yards. With the July 2001 closure of the dam gate, the release of sediments downstream has ceased.*

DQO 4 - Define the Boundaries of the Study

- 1) General Area of Investigation includes
 - a) Conestee Foundation property
 - b) Reedy River sediments
 - c) Area of well survey/sampling
 - d) 5 acre access area (no sampling planned, phase 1 type assessment only)
- 2) Specific Areas/Focus for Initial and Second Phase of the TBA
 - a) Initial Phase – SCDHEC
 - i) Conestee Foundation Property, specifically the following areas of the lake - the south lobe, east lobe, a slough along the west-side, mid-reach of the lake, the Marrow Bone Creek slough, and cores from the former delta areas. *Accomplished in Initial TBA through collection of 29 Lake Conestee sediment samples and 10 Lake Conestee surface water samples*
 - ii) Reedy River sediments between Lake Conestee Dam and approximately 3 miles downstream. *Accomplished in Initial TBA through collection of 10 Reedy River sediment samples between dam and Log Shoals Road.*
 - iii) Area of well survey/sampling. *SCDHEC conducted a well survey of the area immediately west south and east of the Lake. One private well still in use was sampled. No drinking water quality standards were exceeded.*
 - iv) Use GPS to document sampling point locations, mark contact points. *Initial TBA included survey of site boundaries and sampling locations (except for private well) with GPS.*
 - b) Second Phase – COE
 - i) Deeper zones, other spatial areas, groundwater, any hot spots identified in Phase 1.

Based on results of Initial TBA, focus of Second Phase has changed. Second Phase will include assessment of exposed sediment along lake shoreline that poses a potential direct contact route of exposure to persons visiting the site, other spatial areas not addressed in first phase of assessment (northern and western portions of the Lake, beaver impounded areas), and fish tissue analysis.

DQO 5 - Develop a Decision Rule

- 1) Define thresholds for environmental and human health
 - a) Exposed sediment (0-2 feet bgs): EPA Region IX Preliminary Remediation Goals (Residential)
 - b) Inundated sediment: EPA Region IV Ecological Risk Assessment Bulletins-Supplement to RAGS (Sediment criteria)
 - c) Soil(greater than 2 feet bgs): EPA Region IV Ecological Risk Assessment Bulletins-Supplement to RAGS Screening Criteria for Soil, EPA Region IX Soil Screening Levels for Migration to Groundwater
 - d) Surface Water: EPA Region IV Ecological Risk Assessment Bulletins-Supplement to RAGS Freshwater Surface Water Screening Values, EPA Maximum Contaminant Levels
- 1) IF thresholds are exceeded, THEN:
 - a) Resample and confirm data. *Second Phase TBA will address remaining spatial areas of the Lake, exposed shoreline sediments, fish tissue analysis*
 - b) Meet with Decision Group to develop strategy. *Strategy for Second Phase discussed in meetings on June 5 and July 10, 2001. Strategy is still being developed through comments on COE Scope of Work for Targeted Brownfields Assessment Follow-Up Investigation, dated September 10, 2001.*
 - c) Notifications *Official postings not warranted at this time.*
- 2) IF we determine that dam gate needs to be closed (i.e., current release is a threat). *Although it is a temporary fix, the gate in the dam was closed to prevent further release of sediment downstream in the short term.*



Dave Hargett
<dhargett@pincongrp.com>

10/18/2001 01:28 PM

To: "Angela K. Gorman"

<GORMANAK@COLUMB34.DHEC.STATE.SC.US>, Mickey Hartnett/R4/USEPA/US@EPA, dmckinley@notes.sac.usace.army, jwylie@pincongrp.com, alan.d.shirey@sac01.usace.army.mil
cc: Dana Leavitt <dleavitt@home.com>, JETERGR@COLUMB34.DHEC.STATE.SC.US, Tony Ruhlman <truhlman@pincongrp.com>

Subject: RE: DHEC Fish Tissue sampling at Lake Conestee

Thanks for the update, Angela.

I spent most of the morning exploring some of the west bay area. I jumped alot of waterfowl, numerous groups of 15-30, and lots of small groups, mostly woodies in the wooded sloughs west and north of Taylor Island. Also saw several deer including a nice buck.

Many of the sloughs are disconnected by emergent wetland vegetation, downed trees, etc., so sampling the fishery in the non-contiguous area is probably hard to justify. On the other hand, the significant fishable areas in the West Bay area are limited to the larger connected sloughs along Marrow Bone Creek. I'll try to get out into more of the west bay over the next couple of weeks to scope it out better. I have witnessed local residents fishing in the Marrow Bone - West Bay sloughs on multiple occasions, and reporting they were taking fish for consumption. So, at least some sampling there is appropriate. I can pinpoint where.

Another consideration, there are lots of turtles in the disconnected potholes, sloughs & oxbows. I believe I heard something about someone at the Clemson Toxicology group (CIET) doing tox work on turtles.

As to analytes, is there any point in analyzing for PAHs in tissue, or are we satisfied with metals, PCBs & pesticides?

I know the arguments about fillets vs. whole fish vs. fish organs....

Angela's strategy seems reasonable.

Thanks all.

Dave

-----Original Message-----

From: Angela K. Gorman [mailto:GORMANAK@COLUMB34.DHEC.STATE.SC.US]

Sent: Thursday, October 18, 2001 1:39 PM

To: hartnett.mickey@epa.gov; dmckinley@notes.sac.usace.army;

dhargett@pincongrp.com; jwylie@pincongrp.com;

alan.d.shirey@sac01.usace.army.mil

Cc: JETERGR@COLUMB34.DHEC.STATE.SC.US

Subject: DHEC Fish Tissue sampling at Lake Conestee

Everyone,

Earlier today I talked with Alan about the Scope of Work for the Round 2 TBA and told him I would get more information about DHECs Bureau of Water's recommendations for the TBA fish sampling. I also wanted to find out about what the BOW plans for sampling fish tissue at Lake Conestee to make sure our TBA sampling would not duplicate their efforts and also to try to ensure consistency between both sampling efforts.

I spoke with Butch Younginer with BOW. He said that plans are to sample in November or December but that it may take a while for the lab to analyze the samples due to budget problems. They plan to sample in the main part of the lake near the dam. They will fillet the fish (standard FDA fillet - scales off, skin on) and plan to analyze for a full suite of metals, PCBs and pesticides.

Regarding our sampling efforts, Butch again stated that sampling the beaver dam areas would give us worst case data that may force SCDHEC to issue fishing restrictions. When I asked, he said that if results from different areas showed different results that fishing restrictions could be issued for only specific portions of the lake. He recommended analyzing fillets because of problems with using whole fish data to evaluate human health concerns. He also recommended sampling for a full suite of metals along with pesticides and PCBs. Based on this info, I think we should go ahead with sampling the beaver impounded areas, analyze fillets (maybe whole fish also if budget allows), and analyze for metals, pesticides and PCBs.

In case some of you have not seen it, I have attached my initial comments

that includes the earlier BOW comments regarding fish tissue analysis.

Thanks,
Angela

ATTACHMENT C



Dave Hargett
<dhargett@pincongrp.com>

10/18/2001 01:28 PM

To: "Angela K. Gorman"
<GORMANAK@COLUMB34.DHEC.STATE.SC.US>, Mickey
Hartnett/R4/USEPA/US@EPA, dmckinley@notes.sac.usace.army,
jwylie@pincongrp.com, alan.d.shirey@sac01.usace.army.mil
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To: hartnett.mickey@epa.gov; dmckinley@notes.sac.usace.army;

dhargett@pincongrp.com; jwylie@pincongrp.com;

alan.d.shirey@sac01.usace.army.mil

Cc: JETERGR@COLUMB34.DHEC.STATE.SC.US

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In case some of you have not seen it, I have attached my initial comments

that includes the earlier BOW comments regarding fish tissue analysis.

Thanks,

Angela

RECORD OF PHONE CONVERSATION

Name: Angela Gorman, SCDEHC

Date: 2/13/03

Phone Number: 803-896-4121

☐ Returning call

☒ Called me

SUBJECT: Lake Conestee, SC Study

☐ Cold call

Mtg today with Dave Hargett (Pinnacle). State hopes to be close to completing VCP contract with Conestee Foundation. No deadline to complete.

SCDEHC risk group should do human RHP, maybe ecological risk assessments on site. Will EPA do assessment? Will ask Mickey.

Discussed timeframe for completion. Thinking that would have an internal meeting in April to discuss the next steps.

Maybe ready for public meetings by early summer. Decide if need restrictive covenants or other controls on site.

→ I asked for Phase I study - I don't have text. Angela would copy everything but maps since wouldn't come out.

ACTION ITEMS:

- Talk to Mickey about doing any risk assessments
 - State's responsible for making those determinations. Could ask EPA for technical assistance; have done in past. Be specific about what want done; not just risk assessment.
 - Bfs isn't going to pay for everything on this project - just seed. Need to get competitive grants; academic interest, etc.
- Call Angela back to discuss. Spoke to her on 2/15/03 to relay above information. Will be in touch soon.

RECORD OF PHONE CONVERSATION

Name: Angela Gorman, SC DHEC

Phone Number: _____

SUBJECT: Lake Conestee

Date: _____

☐ Returning call

☐ Called me

☐ Cold call

ACTION ITEMS:

RECORD OF PHONE CONVERSATION

Name: Dave Hargett, Pinnacle

Phone Number: 864-467-0811 x13

SUBJECT: Lake Conestee, SC
Sample preservation

Date: 2/13/03

☐ Returning call

☐ Called me

☒ Cold call

Asked how they preserved sediment samples since collected so long ago. \Rightarrow They are in storage; no special handling; not frozen.

Explained my concern over TOC analyses at the late date especially since volatilization + oxidation would alter chemistry.

Dave thought they might be lowered TOC but still worth doing. I told him I would speak to others before I decide to do extra analyses.

He is adjunct at Clemson + toxicology students have gotten interested in lake. One doctoral student interested in effects of PAHs + metals on fish.

Asked if I would have business in area; happy to give tour of lake.

Also, talked about need for add'l work. Suggested needed plots + I agreed, especially kriging.

Would have been good to do simple limnol study. (\Rightarrow sounds like now wants to do work recommended by me to see.)

ACTION ITEMS:

Jeanette Samaritan

02/24/2003 01:09 PM

To: Alan.D.Shirey@USACE.ARMY.MIL

cc: (bcc: Jeanette Samaritan/R4/USEPA/US)

Subject: Re: Lake Conestee - Additional Sample Analysis



I am waiting to receive a copy of the Phase I assessment results which I did not find in the files. I will decide after I have a chance to review the previous study.

Alan.D.Shirey@USACE.ARMY.MIL



**Alan.D.Shirey@USACE
.ARMY.MIL**

02/23/2003 05:04 PM

To: Jeanette Samaritan/R4/USEPA/US@EPA

cc:

Subject: Lake Conestee - Additional Sample Analysis

Jeanette,

I know you talked to Dave Hargett last week about sample preservation and I just wanted to check with you to see if ya'll have made a decision yet on the additional analysis that Dave proposed.

Thanks,
Alan.

Alan Shirey

Lead Environmental Engineer
U.S. Army Corps of Engineers, Charleston District
69A Hagood Ave.
Charleston, SC 29403-5107
(843) 329-8166



Alan.D.Shirey@USACE
.ARMY.MIL

02/05/2003 08:51 PM

To: Jeanette Samaritan/R4/USEPA/US@EPA

cc:
Subject: Lake Conestee - Additional Sediment Analysis

Tom Billings - Liaison

Jeanette,

The estimated contractual cost for the additional analysis (i.e., hydrometer analysis and TOC analysis) of 12 sediment samples plus interpretation of the results is \$3840. Zapata and Pinnacle have also identified some "out-of-scope" costs that they incurred that I feel are legitimate expenses. These items are rental of a John Deere Gator (i.e., a type of ATV) and additional labor for locating new background sediment samples based on comments from the draft Work Plan review meeting. The cost for these "out-of-scope" items is \$1330. This results in a total contractual cost of \$5170.

Our administrative costs for awarding the modification are \$2500. I know that proportionally our costs seem very high. Unfortunately this is the nature of government contracting (as you are probably aware) in that it costs us almost the same to do a small modification as it costs to do a large modification.

This results in a total cost of \$7670. This is additional funding that we will need from you to get the sediment analysis accomplished. The money that we still have on hand is needed for report review and supporting the public meeting.

Give me a call if you would like to discuss.

Thanks,
Alan.

Alan Shirey

Lead Environmental Engineer
U.S. Army Corps of Engineers, Charleston District
69A Hagood Ave.
Charleston, SC 29403-5107
(843) 329-8166

*TOC : storage at
room temp.*



Alan.D.Shirey@USACE
.ARMY.MIL

02/10/2003 02:20 PM

To: Jeanette Samaritan/R4/USEPA/US@EPA

cc:
Subject: Lake Conestee - Release of Preliminary Data

Jeanette,

I got a call from Dave Hargett on Friday. Dave said that he has been contacted by some toxicology researchers at Clemson University about them doing some eco-tox research at Lake Conestee. Dave wanted to know if he could give them the results from our recently conducted study with the understanding that it be considered "preliminary/pre-decisional" data.

I don't have a problem with Dave's request, but since y'all have paid for this work, I thought I should get the OK from you. Certainly, once we are finished and have finalized the report, the data will be available to the public.

Please let me know if Dave can release the data (labeled as "preliminary/pre-decisional" or some other similar label) to the Clemson researchers.

Thanks,
Alan.

Alan Shirey
Lead Environmental Engineer
U.S. Army Corps of Engineers, Charleston District
69A Hagood Ave.
Charleston, SC 29403-5107
(843) 329-8166

Toxicological Evaluation
- Macroinvertebrates
- Fish (metals/PAHs)

Dave will talk to Gail Jeter

→ Proposal belongs to party for whom EPA conducted study - to release.

*alternative
EPA responds to FOIA request.*



Dave Hargett
<dhargett@pincongrp.com>

12/20/2002 11:28 AM

To: Alan Shirey <alan.d.shirey@sac01.usace.army.mil>

cc: Jeanette Samaritan/R4/USEPA/US@EPA, Dennis McKinley
<Dennis.McKinley@usace.army.mil>, Angela Gorman
<gormanak@columb34.dhec.state.sc.us>, Jerry Wylie
<jwylie@pincongrp.com>

Subject: RE: Lake Conestee TBA Round 2 - Sediment Samples -
SupplekmentalAnalysis

Alan

This is follow up to the preceding message.

We have now received back from the lab all of the sediment samples.

We'll do visual inspections to confirm physical character of the seds & confirm field descriptions.

I strongly recommend doing a particle size analysis and total organic content on these samples as I think that information will be valuable in interpreting the contaminant data we've collected.

We'll go ahead and look into the cost of doing that to give you a better handle on that. We'll follow up over the holidays w/ details.

Y'all have a safe and enjoyable holiday !

Cheers,

Dave

-----Original Message-----

From: Dave Hargett [mailto:dhargett@pincongrp.com]

Sent: Wednesday, December 04, 2002 4:12 PM

To: Alan Shirey; Jeanette Samaritan; Dennis McKinley

Cc: Angela Gorman; Greg Hippert; Jerry Wylie

Subject: Very Preliminary Interpretations - Lake Conestee TBA Round 2

Happy December Lake Conestee Fans

From my discussions w/ Jerry, it appears nearly all of the data have trickled back in from the November sampling extravaganza.

No major surprises, and the data are generally consistent with TBA round 1,,, some patterns a bit distinct from round 1 that may be a function of having a different lab... but in general we have similar patterns of contamination.....

Wherever our talented and dedicated sampling team collected subaqueous sediments, or sediments from former sloughs, we have, for sediments:

- lots of PAHs

- lots of metals (per Cr, Pb, Zn & others,,, although perhaps not quite as high in concentrations as round 1)

- scattered but sometimes high hits of pesticides (appears to be more DDT,D&E this time, plus more chlordane, & others)

- not very much PCBs

We've got this pattern essentially everywhere within the footprint of the lake, from the very northernmost neck, to west bay, northlake, east bay & south bay.

For the some of the samples along the shoreline zones, above the water line, the contamination is less, as we would have anticipated.

The background sediment samples will be very valuable in providing a good baseline for background.... those look good.

For water samples,,, nearly all samples appear to be relatively clean,,, a few small hits that could be related to turbidity,,, but we'll take a look, and feel those are the exception.

No fish data yet....

As regards the sediment contamination, once we've got all the data we can look a little more closely at spatial trends. We can see that there will be significant variability in concentrations for any parameter, simply because the depositional environment for the entire lake has a rather chaotic history of alternating high and low energy deposition, cross-cutting, and subsequent re-deposition, all of which is entirely as one would expect in a prograding deltaic environment. We could take several hundred deep cores and attempt to put the three-dimensional X temporal puzzle together, and that would be a great thesis project for a fluvial geomorphology student. But for the present task, the salient issue is the question of, what kinds of sediments are the contaminants most likely to be concentrated in....

One important issue that Jerry and I carry from much observation at Lake Conestee, is the concentrations of contaminants will likely be highly correlated with the organic and fines (silt + clay) proportion of the sample matrix. To make sure we have a good handle on the nature of the matrix, we asked the lab to ship the residual materials back to us for visual inspection, and potentially to do some organic content & particle size analysis. From much past experience I think this would be a very worthwhile analysis to do, at least on some of the samples.

I recommend doing analysis of total organic carbon content (or other analysis for organic character) as well as the PSAs (hydrometer is really all we need).... for some representative set of the samples.

Just wanted to point out that these items are out of scope and let you think about authorizing them as an additional, appropriate, out-of-scope activity. Let us know what you think and we can get estimates for analysis and for our time to do what we need to do.

We'll look to hear from you soon.

Thanks, Dave



Dennis.McKinley@usa
ce.army.mil

12/30/2002 08:19 AM

To: Alan.D.Shirey@USACE.ARMY.MIL, Joe.Wilson@USACE.ARMY.MIL,
ghippert@zapeng.com, jwylie@pincongrp.com,
dleavitt@upstateforever.org, Jeanette
Samaritan/R4/USEPA/US@EPA,
gormanak@columbia34.dhec.state.sc.us

cc:
Subject: RE: Lake Conestee Brownfields

Greg,

Are we on schedule for "Submit Draft Assessment Report" Also, need an actual complete date for "Complete Field Work".

Thanks
Dennis

-----Original Message-----

From: McKinley, Dennis SAC

Sent: Friday, October 11, 2002 03:11

To: Shirey, Alan D SAC; Wilson, Joe SAC; 'ghippert@zapeng.com'; 'jwylie@pincongrp.com';
'dleavitt@upstateforever.org'; 'samaritan.jeanette@epamail.epa.gov';
'gormanak@columbia34.dhec.state.sc.us'

Subject: Lake Conestee Brownfields

Greg,

The schedule you sent the other day (attached) looks good.

Thanks

Dennis

Revised Schedule based on NTP with Field Wo Clear Day Bkgrd.JP



Alan.D.Shirey@USACE
.ARMY.MIL

03/23/2003 06:38 PM

To: gormanak@dhec.sc.gov

cc: Jeanette Samaritan/R4/USEPA/US@EPA,
Dennis.McKinley@usace.army.mil

Subject: Lake Conestee Comments

Angela,

I have a couple thoughts/questions about your comments:

- It appears that several comments don't really require a response (they appear to just be observations), specifically comments 13, 14, and 16. Do you agree?
- I believe that comment 15 is beyond the scope of Zapata's/Pinnacle's tasking. I agree that it would be interesting information, but unless you (or Jeanette) feel strongly about doing this, I don't think we can get this done with changing the scope and getting more funding from Jeanette.
- I believe that the last 4 columns of your table are getting more into a qualitative risk assessment, which is beyond the scope of Zapata's/Pinnacle's tasking. I would recommend deleting these columns; however, if you (or Jeanette) feel strongly about keeping them, then we can discuss it. Again, I think it might require additional funding from Jeanette.

Feel free to give me a call if you want to discuss.

Alan.

Alan Shirey

Lead Environmental Engineer
U.S. Army Corps of Engineers, Charleston District
69A Hagood Ave.
Charleston, SC 29403-5107
(843) 329-8166

PROJECT REVIEW COMMENTS

Date: March 21, 2003

Page 1 of 3

To: Zapata Engineering (Greg Hippert)

From: ALAN SHIREY

Project and Location: Lake Conestee Brownfields Targeted Assessment Follow-up Investigation – Draft Report; Greenville, South Carolina

Cmnt No.	Drawing No. or Par. No.	Comments	Review Action
1	Para 2.4; page 7	Second paragraph, fourth sentence: Add "Preliminary" before "Regulatory" at the beginning of the sentence. The reason for this change is to ensure that the readers (i.e., the Conestee community) understand that all comparisons to regulatory values have been preliminary in nature. An alternative would be to explain (in layman's terms) what is meant by "regulatory screening levels."	
2	Para 4.2.1; page 15 & Tables 4 - 10	Although comparisons to the South Carolina background sediment concentrations (i.e., the Canova 1999 report) can be useful, I'm not sure it provides much value here. In fact, since we collected some background samples, it may just confuse the issue. I don't believe the values in the Canova report have any human health or ecological risk basis. Any values in Tables 4 - 10 that were shaded based on an exceedance of "Canova" is misleading and shouldn't be done. It may be best to delete any reference to the Canova report (although I would be receptive to leaving it in, but just changing the way it is referenced).	
3	Sections 4.4, 4.5, & 4.6 & Tables 4 - 10	Please change the discussions so that separate statements are made about the number of exceedances of the human health screening levels and the number of exceedances of ecological screening levels. Tables 4 - 10 should be changed in a similar manner.	
4	Para 4.4.1, 4.4.3, 4.5.1, 4.5.3, & 4.5.5	In each of these paragraphs, reference is made to the total concentration of all PAH compounds that were detected. I believe this comparison has no regulatory meaning, and, therefore, probably shouldn't be done. Possibly list the detected PAHs for each sample or the highest concentration of a single PAH for each sample (other alternatives would be acceptable).	
5	Para 4.4.4; page 19	In the "Comparison Criteria" paragraph, it is stated that the criteria for one SVOC was exceeded; however, in the previous paragraph, it is stated that no SVOCs were detected.	
6	Para 4.5.2; page 21	I believe the reference to "SVOCs" in the "Comparison Criteria" paragraph should be "PAHs."	
7	Para 4.5.3; page 22	I believe the reference to "SVOCs" in the "Comparison Criteria" paragraph should be "PAHs."	
8	Para 4.5.4; page 22	I believe the reference to "SVOCs" in the "Comparison Criteria" paragraph should be "PAHs."	

PROJECT REVIEW COMMENTS (Continuation Sheet)

Date: March 21, 2003

Page 2 of 3

Project and Location: Lake Conestee Brownfields Targeted
Assessment Follow-up Investigation – Draft Report

SHIREY

Item No.	Drawing No. or Par. No.	Comments	Review Action
9	Para 4.5.5, page 23	I believe the reference to "SVOCs" in the "Comparison Criteria" paragraph should be "PAHs."	
10	Para 4.5.6, page 23	I believe the reference to "SVOCs" in the "Comparison Criteria" paragraph should be "PAHs." Also, PCBs should be added to this paragraph.	
11	Para 4.6	The statement that two surface water samples were collected from the Reedy River is misleading. I believe that one of the samples was collected from the "river channel" immediately upstream of the dam. Possibly describe this sample in this manner (i.e., collected from the river channel immediately upstream of the dam).	
12	Para 4.7, page 24	In the "Comparison Criteria" paragraph, reword the second sentence as follows: "Dieldrin was detected in five of the ten fish tissue samples and the detected concentration exceeded the criteria in all five samples."	
13	Section 5.0	Please add a paragraph that discusses the preliminary nature of the comparisons to regulatory screening levels and that these exceedances may not be a concern to human health and the environment, but they may be a concern, we don't know until further analysis will need to be performed to determine for sure.	
14	Table 1	Because of the way we did the analysis (i.e., almost all samples were analyzed for PAHs, but only a limited number of samples were evaluated for SVOCs), please add separate columns for SVOCs and PAHs.	
15	Tables 4 - 10	Please change the SVOCs heading to PAHs and add a separate SVOCs heading to the appropriate tables. If no SVOCs (other than PAHs) were detected for an entire group of samples please include the SVOC category anyway and just note that no SVOC compounds were detected. This change will allow the tables to provide a listing of all analysis that was performed.	
16	Tables 4 - 10 & Appendix C	Please use consistent units (i.e., mg/kg, ppm, µg/kg, µg/L, etc.) between the results tables and the Comparison Criteria table.	
17	Tables 4 - 10	For any tables that extend onto a second or third page, please add "continued" after the table number on the subsequent pages.	

PROJECT REVIEW COMMENTS (Continuation Sheet)

Date: March 21, 2003

Page 3 of 3

Project and Location: Lake Conestee Brownfields Targeted
Assessment Follow-up Investigation – Draft Report

SHIREY

Item No.	Drawing No. or Par. No.	Comments	Review Action
18	Table 8	Please add a line for PCBs. If no PCBs were detected in any of the samples, then please include the PCB category anyway and just note that no PCBs were detected.	
19	Appendix C	Please do not use scientific notation for the Region 9 screening values; write the values out. I believe there is enough space to do this. Scientific notation might be difficult for members of the community to understand.	
20	Tables 1 & 3	Table 1 shows that the background sediments were analyzed for organic compounds. I don't believe this is correct (this wasn't required in the Scope of Work). If these samples were analyzed for organics, then please revise Table 3 to include a line for each class of compound that was analyzed for.	
21	Editorial	Paragraph 2.2, page 3 & 4: The last paragraph on page 3 states that Mauldin Road Treatment Plant was constructed in 1928; however, the first paragraph on page 4 states that Conestee Mills lawsuit over discharges from the treatment plant occurred in 1925 (i.e., before the plant was built).	
22	General	If you believe that any of my comment conflict with the comments from DHEC please let me know.	

Mr. Alan Shirey
Lead Environmental Engineer
U.S. Army Corps of Engineers, Charleston District
69A Hagood Ave.
Charleston, SC 29403-5107

RE: Draft Report
Targeted Brownfields Assessment Follow-Up Investigation
Lake Conestee
Greenville County

Dear Alan:

The Department's review of the referenced report includes input from the Bureau of Land and Waste Management, the Bureau of Water and the Division of Health Hazard Evaluation. In general, the report should be revised to more clearly differentiate potential human health risks from potential ecological risks. Specific recommendations to better portray potential risk scenarios in the report are provided below. These recommendations include identification of appropriate screening criteria and a recommended format for identifying and reporting where screening criteria are exceeded.

Specific Comments

1. The report should be revised to clearly distinguish between potential risks to human health and ecological health through contaminant pathways identified based on previous discussions between the Department, USEPA and the Conestee Foundation. Media that pose a potential risk to human health should be evaluated relative to appropriate human health screening criteria and media that pose potential ecological risks should be evaluated relative to appropriate ecological screening levels. An outline of potential risk scenarios and appropriate screening criteria is provided below. Please note that some media included in the outline below (ie., buried sediment) are not specifically applicable to the Follow Up Investigation, but are included for completeness because they do apply to the Lake Conestee site as a whole. Additionally, for all sediment samples, the concentration of naturally occurring constituents should be compared to two times the average background concentration.

EXPOSED SEDIMENT (0-2 feet bgs)

Human Health

- USEPA Region IX Preliminary Remediation Goals (PRGs) for Residential Use
- USEPA Region IX PRGs, Soil Screening Levels for migration to groundwater

Ecological

- USEPA Region IV Ecological Screening Values for Soil

BURIED SEDIMENT (>2 feet bgs)

Human Health

- USEPA Region IX PRGs, Soil Screening Levels for migration to groundwater

Ecological

- USEPA Region IV Ecological Screening Values for Soil

SUBMERGED SEDIMENT (under current lake conditions)

Ecological

- USEPA Region IV Ecological Screening Values for Sediment

SURFACE WATER

Human Health

- USEPA Maximum Contaminant Levels (MCLs)
- Region IX PRGs for Tap Water where MCLs are not available

Ecological

- SCDHEC Water Classifications and Standards, R61-68, Appendix, Water Quality Numeric Criteria for the Protection of Aquatic Life and Human Health, Freshwater Aquatic Life, chronic and acute
- USEPA Region IV Ecological Screening Values for freshwater, chronic and acute, only where SCDHEC R61-68 freshwater aquatic life numeric criteria are not available

FISH TISSUE

Human Health

- SCDHEC Water Classifications and Standards, R61-68, Appendix, Water Quality Numeric Criteria for the Protection of Aquatic Life and Human Health, Human Health, For Consumption of Organism Only

-
2. The final report should compare analytical results to the screening criteria as described above. Thus, other criteria used in the draft report (Canova, 1999 and USEPA National Sediment Quality Survey, Appendix D) should be removed from the report.
3. Appendix C Table. The USEPA Region 4 Ecological Screening Value (ESV) for aldrin in sediment is 0.0025 mg/kg.

4. Appendix C Table. Total PCBs in sediment should be compared to the USEPA Region 4 ESV (0.067 mg/kg).
5. Appendix C Table. USEPA Region 4 sediment ESVs exist for both barium and cobalt (200 mg/kg, and 20 mg/kg respectively).
6. Appendix C Table. The ecological screening value for chromium was based on the number for chromium III. Unless the samples were speciated to determine the presence of chromium VI (more toxic form), then the screening levels should be set to chromium VI (e.g., the sediment ESV for Cr III is 117.32 mg/kg, versus 11 mg/kg for Cr VI).
7. Please provide tables clearly showing the occurrence, distribution, concentrations, detection limits, human health screening values, etc. for all detected constituents in each media of concern (soil, sediment, surface water). See Table 1 example attached.
8. Please provide similar tables for constituents screened against ecological screening values (ESVs). A column should be added to this table which includes the screening-level hazard quotient (HQ), so that the magnitude of the ESV exceedance is evident.
9. Appendix E - For some constituents, note that the minimum value detected has been placed in the maximum value column and vice versa. This table should be corrected, or, preferably, this table may be eliminated if this data is incorporated into tables as described in Comments 7 and 8.
10. Please provide additional information regarding the fish tissue samples. For the grab samples, please provide any available information about the size of the fish such as weight or length. For the composite samples, please provide the weight, length and species of each fish as well as the number of fish in each sample.
11. The document is fairly well organized with very readable tables and well labeled maps and aerial photos. One suggestion would be the addition of a map that has the various sampling zones e.g North Lake, East Bay, South Lake etc. delineated on one map to facilitate geographic orientation for the reader. Another would be to organize the summary tables upstream to downstream in a consistent manner.
12. Some sampling areas were described as "new exposure areas". It was not clear if this was exposure to the atmosphere or exposure to the Reedy River after the recent refilling of parts of the impoundment. Perhaps further elaboration of why these sites are significant would be helpful.

13. It was surprising that there were no detects of sediment PAH's and pesticides in the background samples since they are ubiquitous in the urban environment and can be transported through atmospheric deposition.
14. The relative distribution of sediment PAH's was interesting in that no clear pattern was present. There seemed to be hotspots of PAH's within areas. Taylors Island, North Bay and South Bay had generally higher means than East Bay and WestLake but they had hot spots as well.
15. It would be interesting to analyze the stratification of the PAH concentrations in sediment cores to obtain information on the timing of deposition and the degree of bioavailability of these contaminants.
16. The background soils data was very useful in documenting the probable anthropogenic sources of the high metals concentrations throughout the different lake areas. The variability within and among the areas was interesting and probably reflects variable flow and deposition history as the lake has changed.
17. It is highly recommended that a special summary page of surface water data and analysis, separate from sediment be included. It is also suggested that the state water quality standards as listed in R61-68 for the analyzed constituents be included in table of comparison criteria to aid in evaluation of surface water samples. Surprisingly there were just a few contraventions of priority metals acute criteria ie. Copper, Zinc.

If you have any questions or comments regarding this letter, please contact me at (803)896-4121.

Sincerely,

Angela Gorman, Hydrogeologist
Division of Site Assessment and Remediation
Bureau of Land and Waste Management

Cc: Susan Turner, Appalachia II District EQC
Don Siron, BLWM
Tracy Shelley, EQC Administration
Andy Miller, BOW

enclosure



"Shirey, Alan D SAC"
<Alan.D.Shirey@USAC
E.ARMY.MIL>

09/18/2002 08:41 AM

To: "Jerry Wylie (E-mail) (E-mail)" <jwylie@pincongrp.com>

cc: "Greg Hippert (E-mail)" <ghippert@zapeng.com>, "Dave Hargett (E-mail)" <dhargett@pincongrp.com>, "McKinley, Dennis SAC" <Dennis.McKinley@usace.army.mil>, "Angela K. Gorman (E-mail)" <GORMANAK@COLUMB34.DHEC.STATE.SC.US>, Jeanette Samaritan/R4/USEPA/US@EPA

Subject: Lake Conestee Work Plan

Jerry,

I found a small mistake in the Work Plan (it appears to be the result of a couple of the samples showing up in more than one of Figures 9A, 9B, and 9C).

- In Paragraph 5.1.4 of the Work Plan the total number of samples discussed is 25 sediment samples and 11 surface water samples; however, there should only be 10 surface water samples. Additionally, I think the description of the sample locations isn't totally consistent with Figures 9A, 9B, and 9C.
- The sampling at the crescent slough is described in the text as being one exposed sediment sample and one surface water sample. While this is consistent with Figure 9B, Figure 9C seems to show a submerged sediment sample at the crescent slough (Figure 9C also shows the surface water sample at the crescent slough). I would suggest changing the text in Paragraph 5.1.4 to list one exposed sediment sample, one submerged sediment sample, and one surface water sample being collected from the crescent slough.
- The sampling at Taylor's Island/West Delta area is described in the text as being eleven exposed sediment samples, two submerged sediment samples, and two surface water samples. There is only one surface water sample being collected from this area. The other surface water sample, although it is shown on Figure 9C, is the crescent slough surface water sample. Also, one of the submerged sediment samples, again although it is shown on Figure 9C, is really associated with the crescent slough.
- Too avoid confusion, I would also suggest deleting the crescent slough surface water sample and the crescent slough submerged sediment sample from Figure 9C and adding the crescent slough submerged sediment sample to Figure 9B. Also, the sample from the river channel at the dam is shown on both Figures 9A and 9B. Although, the changes to the figures aren't absolutely necessary, it may help avoid confusion when the field work is

conducted.

I would suggest making similar changes to Paragraph 4.1 in the FSAP as follows:

- In the Lake Conestee Sediment bullet change, the number of crescent slough samples from 1 to 2 and change the number of Taylor's Island/West Delta samples from 13 to 12.
- In the Lake Conestee Surface Water bullet, change the number of Taylor's Island/West Delta samples from 2 to 1 and change the number of East Bay samples from 4 to 5. I believe there was actually a mistake in this group in that the crescent slough sample was counted twice (once as a crescent slough sample and once as a Taylor's Island/West Delta sample) and one of the East Bay samples was missing. Also, in this bullet, the sample in the river channel is listed as a separate sample location (i.e., Reedy River adjacent to East Bay) that isn't included with the East Bay samples; however, the sample designation protocol in Paragraph 2.1 identifies "RIVER REEDY" samples as being upstream reaches of the river. I'm just concerned that we might mislabel a sample and get confused as to where it was collected from. (NOTE: in the Work Plan this sample is included with the East Bay samples.)

Other than this, it looks good. I think we have a good "plan of attack." If you have any questions, give me a call.

Alan.

Alan Shirey

Lead Environmental Engineer
U.S. Army Corps of Engineers, Charleston District
69A Hagood Ave.
Charleston, SC 29403-5107
(843) 329-8166

SC 206 LIST AIRMETS LISTED ALPHABETICALLY

WATERBODY NAME	STATION DESCRIPTION	STATION	BASIN	COUNTY	HYDROLOGIC UNIT	IMPAIRED USE	CAUSE	2002 RANK
RAWL'S CREEK	RAWL'S CREEK AT S-32-107	S-287	SALUDA	LEXINGTON	03050109210	AL	BIO	1
RED BANK CREEK	RED BANK CREEK AT SANDY SPRINGS RD BTWN S-32-104 & SC 602	C-067	SALUDA	LEXINGTON	03050110020	REC	FC	2
REEDER POINT BRANCH	REEDER POINT BRANCH AT SC 48	C-073	SALUDA	RICHLAND	03050110030	AL	DO	2
	REEDER POINT BRANCH AT SC 48	C-073	SALUDA	RICHLAND	03050110030	REC	FC	2
	REEDY RIVER AT S-23-30.3.9 MI SE GREENVILLE	S-013	SALUDA	GREENVILLE	03050109100	REC	FC	2
	REEDY RIVER AT S-23-44.8.1.75 MI SE CONESTEE	S-018	SALUDA	GREENVILLE	03050109100	REC	FC	2
	REEDY RIVER AT U.S. 76	S-021	SALUDA	LAURENS	03050109120	REC	FC	2
	REEDY RIVER AT U.S. 76	S-070	SALUDA	LAURENS	03050109120	REC	FC	2
	REEDY RIVER ON HWY 418 AT FORK SHOALS	S-072	SALUDA	LAURENS	03050109120	REC	FC	2
	REEDY RIVER ON HWY 418 AT FORK SHOALS	S-072	SALUDA	LAURENS	03050109120	REC	FC	2
	REEDY RIVER AT UNR RD OFF US 276.75 MI W TRAVELERS REST	S-073	SALUDA	GREENVILLE	03050109100	REC	FC	2
	REEDY RIVER AT RIVERS ST. DOWNTOWN GREENVILLE	S-319	SALUDA	GREENVILLE	03050109100	REC	FC	2
	REEDY RIVER AT S-23-316.9.5 MI SSW OF MAULDIN	S-323	SALUDA	GREENVILLE	03050109100	REC	FC	2
	REEDY RIVER AT S-23-316.3.5 MI SSW OF MAULDIN	S-323	SALUDA	GREENVILLE	03050109100	REC	FC	2
	REEDY RIVER AT S-23-38	S-778	SALUDA	GREENVILLE	03050109120	REC	FC	2
	REEDY RIVER AT SR 133	S-888	SALUDA	GREENVILLE	03050109100	AL	BIO	2
REMIK SWAMP CREEK	REMIK SWAMP CREEK AT S-15-41	CSTL-584	SALKEHATCHIE	COLLETON	03050208010	AL	BIO	2
ROBERTS SWAMP	ROBERTS SWAMP AT SR 690	E-592	EDISTO	ORANGEBURG	03050204070	AL	BIO	2
ROCKY CREEK	ROCKY CREEK AT BRDG IN BATESVILLE 1 MI AB JCT WITH ENOREE	BE-007	BROAD	GREENVILLE	03050108010	AL	BIO	3
	ROCKY CREEK AT S-12-35.5 MI E OF CHESTER	BE-007	BROAD	GREENVILLE	03050108010	REC	FC	2
	ROCKY CREEK AT S-23-453.3.5 MI SW OF SIMPSONVILLE	CW-002	CATAWBA	CHESTER	03050103090	REC	FC	2
	ROCKY CREEK AT S-23-453.3.5 MI SW OF SIMPSONVILLE	S-091	SALUDA	GREENVILLE	03050109100	AL	BIO	3
	ROCKY RIVER AT S-33-87	S-720	SAVANNAH	GREENVILLE	03050109100	REC	FC	3
	ROCKY RIVER AT S-04-263.2.7 MI SE ANDERSON AT STP	SV-031	SAVANNAH	MCCORMICK	03050107010	REC	FC	2
	ROCKY RIVER AT S-04-192 BL ROCKY RIVER STP	SV-041	SAVANNAH	ANDERSON	03050103070	REC	FC	2
	RUM CREEK AT S-29-187	B-086	BROAD	YORK	03050106020	REC	FC	2
	SALKEHATCHIE RIVER AT SC 278.2.5 MI S BARNWELL	CW-232	CATAWBA	LANCASTER	03050103040	AL	DO	2
	SALKEHATCHIE RIVER AT 601.9 MI NE HAMPTON	CSTL-003	SALKEHATCHIE	BARNWELL	03050207030	REC	FC	2
	SALKEHATCHIE RIVER AT U.S. 301 & 321	CSTL-006	SALKEHATCHIE	COLLETON	03050207040	REC	FC	3
	SALUDA RIVER AT SC 81 SW OF GREENVILLE	CSTL-048	SALKEHATCHIE	ALLENDALE	03050207030	REC	FC	3
	SALUDA RIVER AT SC 121	S-007	SALUDA	ANDERSON	03050109040	REC	FC	3
	SALUDA RIVER AT US 25 BYPASS 1.5 MI ESE WARE SHOALS	S-047	SALUDA	NEWBERRY	03050109150	AL	PH	3
	SALUDA RIVER AT MERCIO ELECT. PLANT WATER INTAKE SSE IFMO	S-125	SALUDA	LAURENS	03050109080	REC	FC	3
	SALUDA RIVER JUST BELOW LK MURRAY DAM	S-149	SALUDA	LEXINGTON	03050109210	AL	DO	2
	SALUDA RIVER JUST BELOW LK MURRAY DAM	S-152	SALUDA	LEXINGTON	03050109210	REC	FC	2
	SALUDA LAKE AT FARRIS BRDG ON SC 183.7 MI NE EASLEY	S-152	SALUDA	LEXINGTON	03050109210	AL	DO	2
	TRIB TO SALUDA RIVER 350 FT BL W PELZER STP ON S-23-53	S-280	SALUDA	GREENVILLE	03050109040	REC	FC	2
	SAMPIT RIVER BTWN MOUTHS OF PORTS CREEK & PENNY ROYAL CREEK	MD-073	PEE DEE	ANDERSON	03050109040	REC	FC	2
	SAMPIT RIVER AT US 17	MD-075	PEE DEE	GEORGETOWN	03040207030	AL	PH	2
	SANDERS BRANCH AT SC 278	MD-077	PEE DEE	GEORGETOWN	03040207030	AL	DO	2
	SANDERS BRANCH AT S-25-50	CSTL-010	SALKEHATCHIE	HAMPTON	03050208070	REC	FC	2
	SANDERS BRANCH AT SC RD 363	CSTL-011	SALKEHATCHIE	HAMPTON	03050208070	REC	FC	2
	SANDY RIVER AT SC 215.2.5 MI AB JCT WITH BROAD RIVER	B-075	BROAD	CHESTER	03050106040	REC	FC	2
	SAVANNAH RIVER AT US 17 & 9 MI SSW OF HARDEEVILLE	SV-082	SAVANNAH	DORCHESTER	03050202030	AL	DO	2
	SAWMILL BRANCH AT SC 78 E OF SUMMERVILLE	CSTL-043	SAVANNAH	JASPER	03050106040	REC	FC	2
	SAWMILL BRANCH AT SC 78 E OF SUMMERVILLE	SV-091	SAVANNAH	DORCHESTER	03050202030	AL	DO	2
	SAWNEY CREEK AT CO RD 1.5 MI SE OF CALHOUN FALLS	SV-082	SAVANNAH	ABBEVILLE	03050103140	AL	DO	2
	SAWNEY CREEK AT CO RD 1.5 MI SE OF CALHOUN FALLS	SV-082	SAVANNAH	ABBEVILLE	03050103140	REC	FC	2
	SAWNEYS CREEK AT S-28-37	CW-079	CATAWBA	KERSHAW	03050104050	REC	FC	2
	SAWNEYS CREEK AT S-28-37	CW-228	CATAWBA	FAIRFIELD	03050104050	REC	FC	2
	SCAPE ORE SWAMP AT S-20-151	PD-355	PEE DEE	LEE	03040205030	REC	FC	2
	SCOTT CREEK AT SC 34 SW OF NEWBERRY	S-044	EDISTO	NEWBERRY	03050109150	REC	FC	2
	SHAW CREEK AT S-02-26.4.2 MI NE AIKEN	E-094	EDISTO	AIKEN	03050204020	AL	PH	2
	SIEM CREEK AT BRDG ON US 17	MD-071	SANTIE	CHARLESTON	03050202070	AL	DO	2
	SINGLETON SWAMP AT S-21-67	MD-071	SANTIE	CHARLESTON	03050202070	AL	DO	2
	SINGLETON SWAMP AT S-21-67	PD-314	PEE DEE	FLORENCE	03040202160	AL	DO	2
	SIX MILE CREEK AT S-04-29.8.2 MI SE OF PENDLETON	PD-314	PEE DEE	FLORENCE	03040202160	REC	FC	2
	SIX MILE CREEK AT S-39-160	SV-181	SAVANNAH	ANDERSON	03050101040	AL	PH	2
	SIXMILE CREEK ON US 21 S OF CAUCE	SV-205	SAVANNAH	PIENS	03050101040	REC	FC	2
	SIXMILE CREEK ON US 21 S OF CAUCE	C-005	SALUDA	LEXINGTON	03050110020	REC	FC	2
	SIXMILE CREEK AT S-29-54	C-005	SALUDA	LEXINGTON	03050110020	AL	BIO	2
		CW-176	CATAWBA	LANCASTER	03050103030	REC	FC	2

* INDICATES TMOL SCHEDULED FOR DEVELOPMENT WITHIN 2 YEARS

AL ≡ aquatic life
BIO ≡ biology

Data Quality Objectives for Lake Conestee Targeted Brownfield Assessment

Originally developed October 18, 2000, before implementation of Initial Phase of TBA

Updated October 5, 2001, after implementation of Initial Phase of TBA. Updated portions are written in *italics*.

Participants:

Mickey Hartnett	EPA	hartnett.mickey@epa.gov	404-562-8661
Angela Gorman	SCDHEC	gormanak@dhec.state.sc.us	803-896-4121
Jerry Wylie	Pinnacle	jwylie@pincongrp.com	864-467-0811 ext.120
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Alan Shirey	ACE	alan.d.shirey@sac01.usace.army.mil	843-329-8166

DQO Step 1 - State the Problems:

- 1) What is future threat to human health and the environment assuming recreational and educational use?
 - a) What is in sediment? *Partially addressed in Initial TBA. Still need to define and document constituents of concern based on available Initial TBA data. Remaining data needs include evaluation of quality of sediments exposed along the lake shoreline*
 - b) What is extent? *Distribution of contaminants appears to be across entire study area. Portions of the lake not addressed in Initial Phase will be addressed in next phase of assessment.*
 - c) What is surface water quality? *There appears to be minimal impact to surface water quality. Needs to be confirmed in next phase due to questions regarding turbidity in some samples.*
 - d) What is groundwater quality? *Groundwater quality assessment was limited to analysis of a single private well that showed no impacts to groundwater quality from contaminants present in the lake. No further groundwater sampling is planned.*
- 2) Is there a threat to downstream water and sediment quality? *Initial TBA results indicate substantially higher concentration of many constituents within Lake Conestee sediments than in Reedy River sediments downstream. Therefore, release of Lake Conestee sediments downstream would likely be a threat to downstream sediment quality. The closure of the dam gate in July 2001 substantially reduced the release of sediments downstream.*

DQO Step 2 - Identify the Decision:

- 1) Primary Decisions/Questions
 - a) Is lake area land and water safe for use by people for recreational and educational use? *Risk screening indicates that PAH, pesticides, metals are elevated above EPA Region IX Preliminary Remediation Goals in soil and sediment. Further evaluation is necessary to determine if these levels pose a risk for the intended use of the lake. Second Phase will evaluate shoreline sediments that pose a route of exposure for human contact. Second Phase will also include fish tissue analysis to evaluate human health risk from fish*

ingestion.

- b) Is area safe for fish/wildlife? *Ecological risk screening indicates that many constituents are well above ecological risk screening levels. Although not a primary focus of the Initial or Second Phase TBA, available data will continue to be used to evaluate ecological risk.*

2) Secondary Decisions/Questions

- a) What is fate of sediments? *Since July 2001, release of sediments from the lake has been substantially reduced by closure of the dam gate.*
- b) What is fate of the dam? *Gate has been closed. More permanent measures to control the dam are being evaluated.*

3) Possible Actions

- a) Posting, Fishing restrictions. *Not warranted based on Initial TBA results. Need fish tissue data from second phase of assessment to determine need for fishing restrictions.*
- b) Pursue PRPs, (How to pursue PRPs). *Not warranted at this time. Need to determine if intended use is appropriate with the contaminant levels present at the site and what corrective action measures if any are needed.*
- c) Management of dam - COE – determine whether to repair water control structure. *Temporary closure of dam gate implemented in July 2001. Additional permanent measures are still being evaluated.*

DQO Step 3 - Identify Inputs to the Decision / Information Needed to Make Decision

- 1) Identify shallow sediment quality to evaluate risks to people and critters through contact. *Accomplished in Initial Phase but data is limited in applicability to human health risk because sample locations are now underwater. Second Phase will evaluate sediments exposed along lake shoreline to further evaluate human health risk. Second Phase will also address fish tissue analysis and areas of lake not addressed in Initial Phase – northern and western portion of lake, beaver impounded areas.*
- 2) Identify deep sediment (down to native rock/soil) quality to evaluate risks from potential release downstream. *Accomplished in Initial Phase. Concentration of some contaminants appears to increase with depth. Risk for release downstream reduced by closure of dam gate. Contaminant concentration with depth still an issue for uses of the site that may disturb buried sediments.*
- 3) Identify contaminant type and concentration. *Broad range of contaminants identified. Still need to define and document list of constituents of concern.*
- 4) Identify contaminant extent. *Initial TBA results indicate impact at all sediment sample locations.*
- 5) Ensure that data collection procedures are consistent between both phases of assessment so that results are comparable. *Initial TBA Sampling methods are documented in the Work Plan for Targeted Brownfields Assessment – Initial Phase, dated November 10, 2000 and the Initial Targeted Brownfields Assessment Report, dated March 8, 2001.*
- 6) Identify whether or not groundwater is impacted. *Groundwater quality assessment was limited to analysis of a single private well that showed no impacts to groundwater quality from contaminants present in the lake.*
- 7) Statistical analysis of data (need to identify appropriate statistical approach, source of info - Bill Davis, COE on assignment to EPA). *Not accomplished to date. May be part of*

- evaluation of data upon completion of Second Phase TBA.*
- 8) Establish background, from existing references and/or benchmark location at Taylors Island. *Evaluation of TBA results and necessary actions are to be risk driven and not dependent on background concentration.*
 - 9) Identify indicators (action level) for decisions. Indicators (action levels) to be identified through risk evaluation or screening rather than more rigorous risk assessment. *Applicable risk screening criteria are specified below:*
 - a) Exposed sediment (0-2 feet bgs): *EPA Region IX Preliminary Remediation Goals (Residential)*
 - b) Inundated sediment: *EPA Region IV Ecological Risk Assessment Bulletins-Supplement to RAGS (Sediment criteria)*
 - c) Soil(greater than 2 feet bgs): *EPA Region IV Ecological Risk Assessment Bulletins-Supplement to RAGS Screening Criteria for Soil, EPA Region IX Soil Screening Levels for Migration to Groundwater*
 - d) Surface Water: *EPA Region IV Ecological Risk Assessment Bulletins-Supplement to RAGS Freshwater Surface Water Screening Values, EPA Maximum Contaminant Levels*
 - 10) Estimate quantity of sediments that have or could be released downstream. Need lake profile and bathymetry info. *The Initial Targeted Brownfields Assessment Report states that the quantity of sediment released downstream is estimated to be 60,000 cubic yards. With the July 2001 closure of the dam gate, the release of sediments downstream has ceased.*

DQO 4 - Define the Boundaries of the Study

- 1) General Area of Investigation includes
 - a) Conestee Foundation property
 - b) Reedy River sediments
 - c) Area of well survey/sampling
 - d) 5 acre access area (no sampling planned, phase 1 type assessment only)
- 2) Specific Areas/Focus for Initial and Second Phase of the TBA
 - a) Initial Phase – SCDHEC
 - i) Conestee Foundation Property, specifically the following areas of the lake - the south lobe, east lobe, a slough along the west-side, mid-reach of the lake, the Marrow Bone Creek slough, and cores from the former delta areas. *Accomplished in Initial TBA through collection of 29 Lake Conestee sediment samples and 10 Lake Conestee surface water samples*
 - ii) Reedy River sediments between Lake Conestee Dam and approximately 3 miles downstream. *Accomplished in Initial TBA through collection of 10 Reedy River sediment samples between dam and Log Shoals Road.*
 - iii) Area of well survey/sampling. *SCDHEC conducted a well survey of the area immediately west south and east of the Lake. One private well still in use was sampled. No drinking water quality standards were exceeded.*
 - iv) Use GPS to document sampling point locations, mark contact points. *Initial TBA included survey of site boundaries and sampling locations (except for private well) with GPS.*
 - b) Second Phase – COE
 - i) Deeper zones, other spatial areas, groundwater, any hot spots identified in Phase 1.

Based on results of Initial TBA, focus of Second Phase has changed. Second Phase will include assessment of exposed sediment along lake shoreline that poses a potential direct contact route of exposure to persons visiting the site, other spatial areas not addressed in first phase of assessment (northern and western portions of the Lake, beaver impounded areas), and fish tissue analysis.

DQO 5 - Develop a Decision Rule

- 1) Define thresholds for environmental and human health
 - a) Exposed sediment (0-2 feet bgs): EPA Region IX Preliminary Remediation Goals (Residential)
 - b) Inundated sediment: EPA Region IV Ecological Risk Assessment Bulletins-Supplement to RAGS (Sediment criteria)
 - c) Soil(greater than 2 feet bgs): EPA Region IV Ecological Risk Assessment Bulletins-Supplement to RAGS Screening Criteria for Soil, EPA Region IX Soil Screening Levels for Migration to Groundwater
 - d) Surface Water: EPA Region IV Ecological Risk Assessment Bulletins-Supplement to RAGS Freshwater Surface Water Screening Values, EPA Maximum Contaminant Levels
- 1) IF thresholds are exceeded, THEN:
 - a) Resample and confirm data. *Second Phase TBA will address remaining spatial areas of the Lake, exposed shoreline sediments, fish tissue analysis*
 - b) Meet with Decision Group to develop strategy. *Strategy for Second Phase discussed in meetings on June 5 and July 10, 2001. Strategy is still being developed through comments on COE Scope of Work for Targeted Brownfields Assessment Follow-Up Investigation, dated September 10, 2001.*
 - c) Notifications *Official postings not warranted at this time.*
- 2) IF we determine that dam gate needs to be closed (i.e., current release is a threat). *Although it is a temporary fix, the gate in the dam was closed to prevent further release of sediment downstream in the short term.*

Data Quality Objectives for Lake Conestee Assessment
Meeting Notes from October 18, 2000

Participants:

Mickey Hartnett	EPA	hartnett.mickey@epa.gov	404-562-8661
Angela Gorman	SCDHEC	gormanak@columb34.dhec.state.sc.us	803-896-4121
Jerry Wylie	Pinnacle	jwylie@pincongrp.com	864-467-0811 ext. 20
Dave Hargett	Pinnacle	dhargett@pincongrp.com	864-467-0811 ext. 13
Dennis McKinley	ACE	dmckinley@notes.sac.usace.army	843-329-8052
Alan Shirey	ACE	alan.d.shirey@sac01.usace.army.mil	843-746-2846

DQO Step 1 - State the Problems:

1. What is future threat to human health and the environment assuming recreational and educational use?
 - a. What is in sediment?
 - b. What is extent?
 - c. What is surface water quality?
 - d. What is groundwater quality?
2. Is there a threat to downstream water and sediment quality?

DQO Step 2 - Identify the Decision:

Primary Decisions/Questions

- a. Is lake area land and water safe for use by people for recreational and educational use?
- b. Is area safe for fish/wildlife?

Secondary Decisions/Questions

- a. What is fate of sediments?
- b. What is fate of the dam?

Possible Actions

Posting, Fishing restrictions,
Pursue PRPs, (How to pursue PRPs)
Management of dam - COE - determine whether to repair water control structure

DQO Step 3 - Identify Inputs to the Decision / Information Needed to Make Decision

1. Identify shallow sediment quality to evaluate risks to people and critters through contact
2. Identify deep sediment (down to native rock/soil) quality to evaluate risks from potential release downstream
3. Identification of contaminant type, concentration
4. Identification of contaminant extent
***** Ensure that data collection procedures are consistent between both phases of assessment so that results are comparable.
5. Identify whether or not groundwater is impacted.
6. Statistical analysis of data (need to identify appropriate statistical approach, source of info - Bill Davis, COE on assignment to EPA)
7. Establish background, from existing references and/or benchmark location @Taylors island.

8. Identify indicators (action level) for decisions. Indicators (action levels) to be identified through risk evaluation or screening rather than more rigorous risk assessment.
9. Estimate quantity of sediments which have or could be released downstream. Need lake profile and bathymetry info.

DQO 4 - Define the Boundaries of the Study

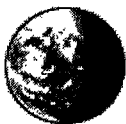
- General Boundaries - Conestee Foundation property
 Reedy River sediments
 Area of well survey/sampling
 5 acre access area (no sampling planned, phase 1 type assessment only)
- Phase 1 (DHEC) - Conestee Foundation Property, specifically the following areas of the lake - the south lobe, east lobe, a slough along the west-side - mid-reach of the lake, the Marrow Bone Creek slough, and cores from former delta areas.
 Reedy River sediments between Lake Conestee Dam and approximately 3 miles downstream
 Area of well survey/sampling
 Use GPS to document sampling point locations, mark contact points
- Phase 2 (COE) - Deeper zones, other spatial areas, groundwater, any hot spots identified in Phase 1

DQO 5 - Develop a Decision Rule

First, define thresholds, environmental and human health
 Surface water (drinking water standards, water quality standards)
 Sediment
 Soils (Region 3 Soil Screening Levels and/or Region 9 Preliminary Remediation Goals)

IF thresholds are exceeded, THEN:
 Resample, confirm data
 Meeting of Decision Group to develop strategy
 Notifications if appropriate

IF we determine that dam gate needs to be closed (i.e., current release is a threat), THEN:
 Close gate. By What Means???



Dave Hargett
<dhargett@pincongrp.com>

08/14/2002 11:50 AM

To: Michelle Cook/R4/USEPA/US@EPA
cc: Angela Gorman <gormanak@columb34.dhec.state.sc.us>, Dennis McKinley <Dennis.McKinley@usace.army.mil>, Alan Shirey <alan.d.shirey@sac01.usace.army.mil>, Dana Leavitt <dleavitt@upstateforever.org>, Jerry Wylie <jwylie@pincongrp.com>, Greg Hippert <ghippert@zapeng.com>
Subject: Lake Conestee Tour - 20 August

Michelle

This is to confirm that we are "GO" for your visit and field tour of the Lake Conestee site next Tuesday, 20 August.

I had mentioned the possibility of a boat tour, but given time and logistical constraints, and weather, I think we may postpone that until we can coordinate it with other site activities, and perhaps some other members of the team.

What I suggest for your visit is that you come to our office... per your voicemail, it sounds like you would get here ~1000 or 1030. I can give you a powerpoint briefing on site history, site characteristics, findings from the first phase of the TBA, and other projects related to Lake Conestee and the Conestee Foundation. We can also go over the DRAFT Work Plan Addendum as you desire. After we grab some lunch, I'll take you out for a tour around the site to show its diversity. If you want to get into the edge of the wetlands bring rubber boots or waders,,, otherwise field clothes & boots. You will get dirty... I will provide DEET to deter the sinister "West Conestee Virus" . (Remarkably, the bugs generally aren't very bad). Jerry Wylie, my associate, who will be heavily involved in the field investigation for the TBA-2, may be available Tuesday to sit in / accompany us.

Greg, Dana, Alan, Dennis, Angela,,, y'all are welcome too, but then you've been there and done that. I'm sure the more you learn about the Lake Conestee project the more excited you will be, Michelle. This is a one of a kind project and a pretty fascinating study in environmental management / restoration issues. Look forward to seeing you Tuesday.

All my contact info is below. Call if you have questions.

Attached is a map to our office, also one to the Conestee area.

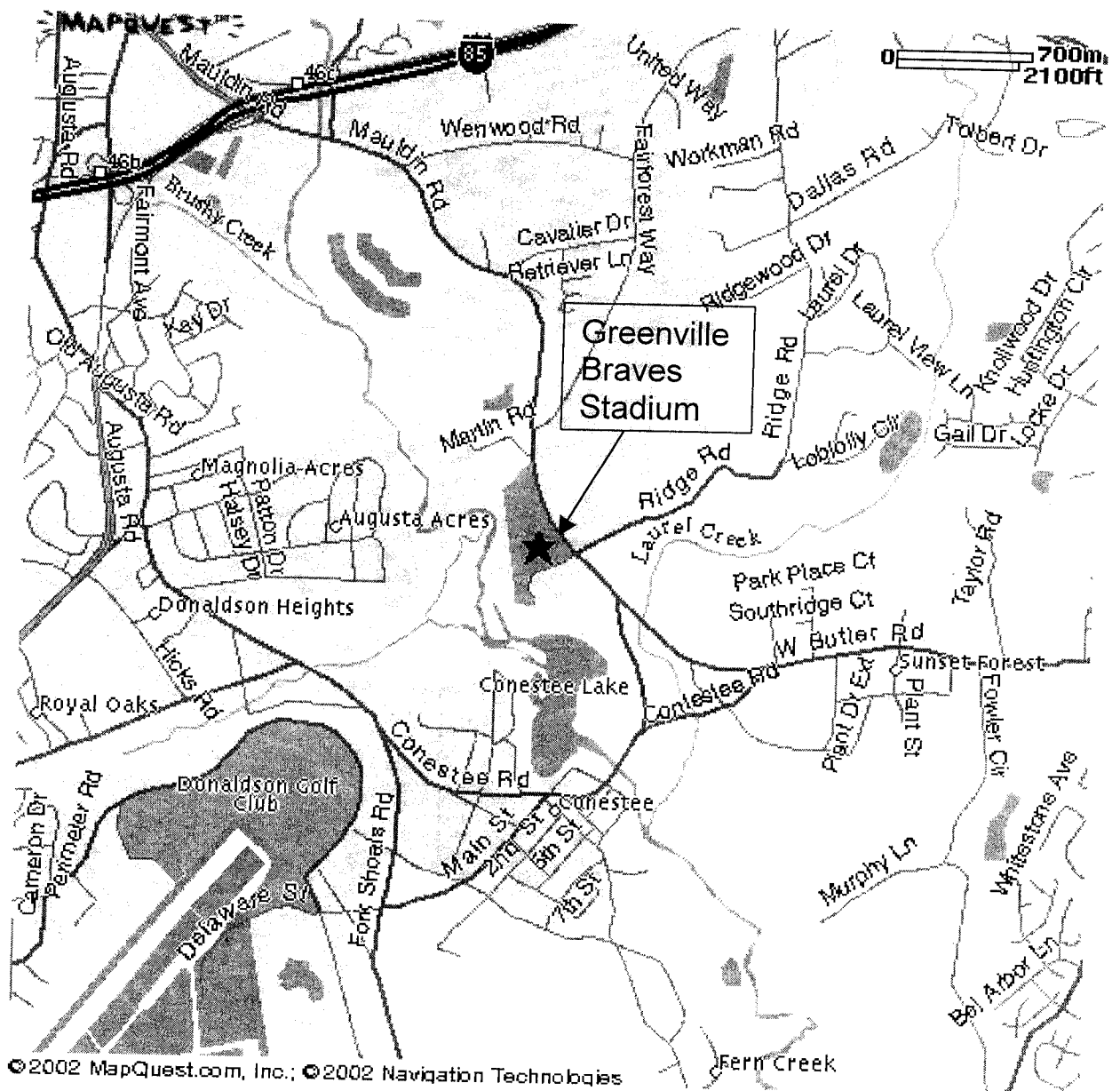
Cheers, Dave

NEW ADDRESS AS OF 13 MAY 2002

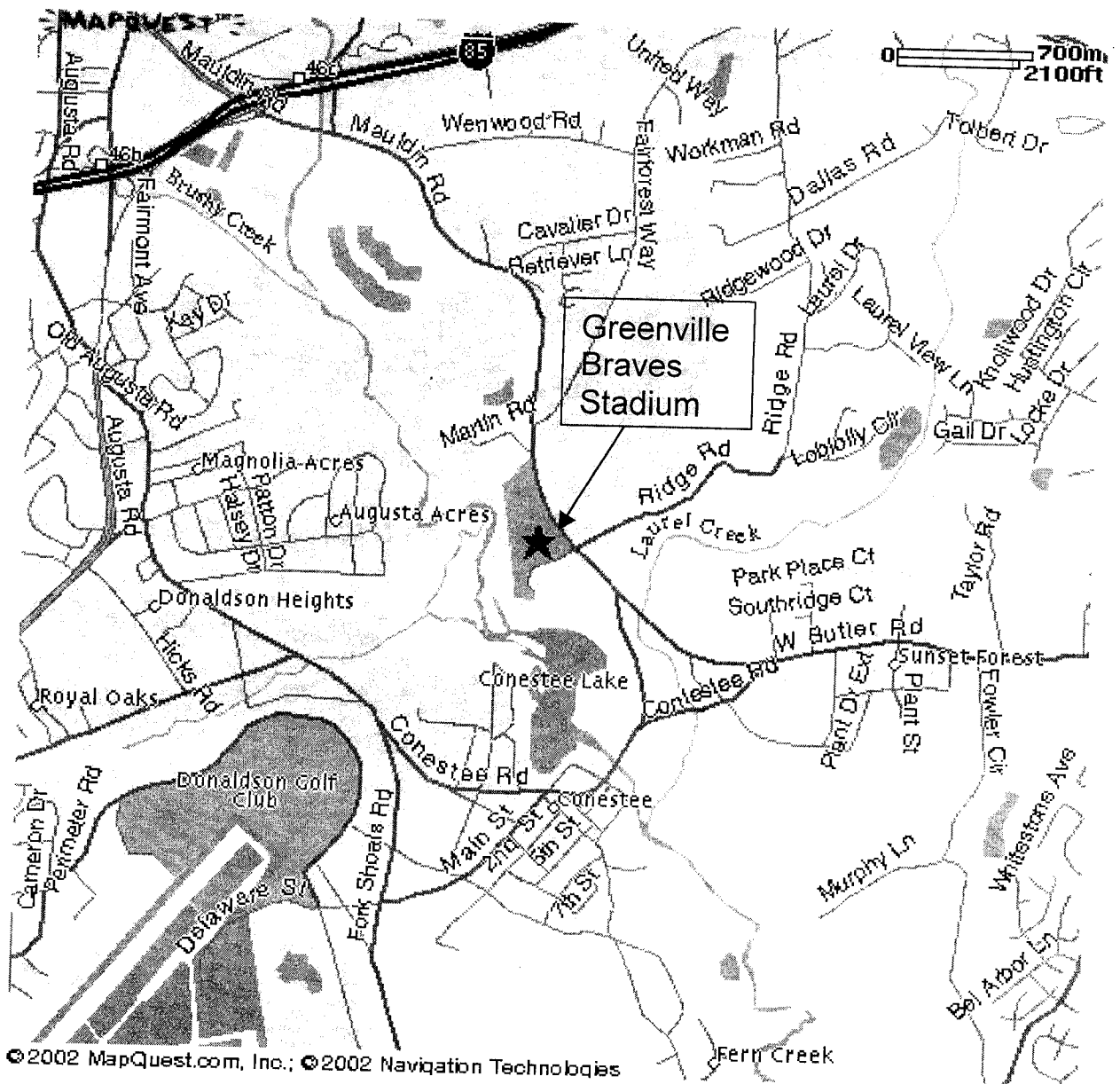
David L. Hargett, Ph.D.
Principal & Senior Consultant
The Pinnacle Consulting Group, Inc.
200 East Camperdown Way, Suite 200-B
Greenville, SC 29601
864.467.0811 x113 office
864.467.9758 fax
864.787.8160 cell



dhargett@pincongrp.com Dave Hargett.v PCGdirections. Conestee Map1.



© 2002 MapQuest.com, Inc.; © 2002 Navigation Technologies



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35 North

135, and go south

to downtown

church st - hwy 29

hospital on right

2 3 miles after 135 becomes 29
pass major inter. (Augusta St)

Go straight cross University
down a long hill across
Reedy river

next exit (left)

light colored Rt

campus down way

back toward river

cross church - small building
on left - 200 E

2 dogpiles 2 story



"Shirey, Alan D SAC"
<Alan.D.Shirey@USAC
E.ARM.Y.MIL>

08/27/2002 11:20 AM

To: Michelle Cook/R4/USEPA/US@EPA, "Dana Leavitt (E-mail)"
<dleavitt@upstateforever.org>, "Dave Hargett (E-mail)"
<dhargett@pincongrp.com>, "Brad Kuntz (E-mail)"
<bkuntz@zapeng.com>, "Greg Hippert (E-mail)"
<ghippert@zapeng.com>, "Jerry Wylie (E-mail) (E-mail)"
<jwylie@pincongrp.com>, "Angela K. Gorman (E-mail)"
<GORMANAK@COLUMB34.DHEC.STATE.SC.US>
cc: "McKinley, Dennis SAC" <Dennis.McKinley@usace.army.mil>
Subject: Lake Conestee

To the Lake Conestee Team:

Reminder: Our Draft Work Plan review meeting is scheduled for tomorrow (August 28) at 10:30 in the DHEC Greenville field office.

The purpose of the meeting is to discuss the comments on the Draft Work Plan and reach consensus agreement among the team. DHEC's and the Corps' comments are attached for everybody's information.

Call me (or Dennis 843-329-8052) if you have any questions.

Alan.

Alan Shirey

Lead Environmental Engineer
U.S. Army Corps of Engineers, Charleston District
69A Hagood Ave.
Charleston, SC 29403-5107
(843) 329-8166

<<DHEC Comments on Draft WP.doc>> <<Safety Office Comments on Zapata Draft SSHP.doc>> <<Lake Conestee Brownfields PM Comments.doc>> <<Lake Conestee Draft Work Plan review comments.doc>>



DHEC Comments on Draft Safety Office Comments on Zapata Draft



Lake Conestee Brownfields PM Com Lake Conestee Draft Work Plan review co

28 August, 2002

Sign - In Sheet

Review of Draft Work Plan Addendum,
Lake Conestee Brownfields
SCDHEC Appalachia II District Office Greenville

Name	Organization	Telephone #
Michelle Cook	USEPA	404 562 8674
Bradley Kuntz	Zapata Eng.	(704) 358-8340
Bryan Moeller	Zapata Eng.	(704) 358-X240
Dave Hargett	Pinnacle	864-467-0811 X113
Jeray Wylie	Pinnacle	864 467-0811, x120
DANA LEAVITT	Conestee FOUNDATION	864-250-0500
Dennis McKelvey	Dept of Engrs	843-329-8352
Alan Shirey	Camps of Engineers	(843) 329-8166
Angela Gannon	SCDHEC	803 896-4121

Lake Conestee Mfg. 8/20/02

Steve Springs
Dane Hargett

maintain as greenspace & wildlife
habitat

the worst sediments are probably
on the bottom

East Bay - Deepest 5'

Historically - textiles & paper
metal works

1892 - Greenville built their 1st
treatment plant above Lake
Conestee

1943 - Ag - pesticides

1983 → 200,000 people at Greenville
braves games - right field is the
lake

Parcel defined as lake area + setback of
20-30 feet

Taylor Island - Archaeological dig found
evidence of Native American activity
if city rehabs the stadium there
may be ~~some~~ benefit to Conestee
Foundation

12
acres

Henderson tract - former dairy farm
Lake Conestee Foundation purchased
for \$1 million

Forester Farm - great view of lake, good place for Env. Education
Clemson & Furman may have great opportunity for studies

low risk dam - low capacity, no real risk downstream

NRCS - ~~National~~ ^{Natural} Resource Conservation Service

✓ USDA Watershed Protection Fund
Sediment Oct 2000 } extensive
May 2001 } study

90,000 yds³ sediment passed out
of lake

150 acre site

South bay & East bay - most potential
for exposure through recreation
fishing
boating

~~PRG~~ PRG & ambient water quality
criteria

Future use →
NPL status? → ???
State Superfund → waiting on additional
+ BHT work
Impaired rating →

State cautions about posting warning
information

section 206 study → integrity of
the dam
Water Resources Act

Greenwood County → uses river
as a drinking water source

special purpose
district
came about
from lawsuit
Voluntary Cleanups Agreement - notified
Western Carolina Reg. Sewer Auth
Greenville - ran treatment plant
to 1925

Foundation does not want to be
litigious

+ phytoremediation of what? contaminated

Use for teaching
united recreation
phyto remediation

want the City of Greenville to
participate because of its
contributions

Ecological risk assessment

~~determine~~

Manage as public green space &
wildlife ~~habitat~~ habitat
Education

Consider non profit corporation
→ acquire & facilitate transfer of
property

to
city &
county
commissioners
Clemson Planning Commission
Clemson ~~Comm~~ is performing a
citizens led study on the Reedy
~~corridor~~ corridor

16 mile watershed
Cost of public map including
Conestee
about river & context of river
elderly community
Clemson process developed some
"visions" - greenways, parks &
education

TBA - 2 DHEC maps / before
sampling, results afterward
Oct. 2000 → a lot of initial hostility
(Sep. 1999 - Conestee Foundation formed)

FILE: Lake Conestee

Re: Fish Sampling Effort

NOVEMBER 18, 2002
~~~~~

Phone Conversation with Alan Shirey  
USACE - Charleston District  
843-329-8166

Informed me that fish sampling occurred this weekend. Had trouble finding enough fish to fillet for analyses.

Wanted to know if could eliminate some contaminants from analyses - pesticides - PCBs - metals

All are secondary consumers for fillet samples.

- Don't know if have juveniles of same species to composite or if compositing multiple species

- Don't know how many fish will be use in the composite.

- I asked if they would consider doing whole body analyses on small fish.

→ SCDHEC told them not to do this since considering ~~with~~ human health & fish tissue conc. → do only fish fillets

Alan will find out what they were doing & with what.

Told him I will be out of office after Tues; go ahead with project if can't get answer today.



Dave Hargett  
<dhargett@pincongrp.com>

12/30/2002 07:09 AM

To: Gail Rawls Jeter <jetergr@columb34.dhec.state.sc.us>

cc: Jeanette Samaritan/R4/USEPA/US@EPA, Mickey Hartnett/R4/USEPA/US@EPA, Dennis McKinley <Dennis.McKinley@usace.army.mil>, Alan Shirey <alan.d.shirey@sac01.usace.army.mil>, Ben Geer Keys <ben.keys@keysprinting.com>, Lezlie Barker <lbarker@aol.com>, Wade Worthen <wade.worthen@furman.edu>, Dana Leavitt <dleavitt@upstateforever.org>, Angela Gorman <gormanak@columb34.dhec.state.sc.us>, Barry Beasley <beasley@water.dnr.state.sc.us>, Brad Wyche <bwyche@upstateforever.org>

Subject: Letter to Editor re: Lake Conestee

The following letter to the editor was in the GNews on Friday, 27 Dec.

Don't know who Mr. Doug Head is or where he is getting his info.

I will contact Mr. Head to advise him that his worst fears are being thoroughly addressed and that no decisions will be made regarding the disposition and management of Lake Conestee without a systematic review of all risk considerations.

Clearly, Mr. Head is not working from a complete body of information, so I will attempt to give him some background on the terrific work of the various agencies involved in addressing Lake Conestee over the last three years. Unfortunately, a little misinformation such as this, published in a public forum, can go a long way to undermine several years of hard work by us all. I'll make sure the GNews editorial staff understand the hazards of firing such a shot without confirming the facts.

As to the more general fear, hysteria, and misinformation presented by Mr. Head in this public forum, I suggest that perhaps SCDHEC (Gail) write a brief letter on behalf of all of the involved agencies, stating the activities that have been underway to address environmental concerns, and human and environmental risks, over the past several years. It might be nice if you mention the remarkable job the CF is doing to address this 'orphan' site.

If you prefer not to do this, Gail, I can put something together. Just thought it would be a good opportunity for SCDHEC to show its (& EPA's & the Corps') high degree of involvement and commitment to this project and to public health & environmental protection.

We can also make sure Mr. Head gets invited to the next public meeting (Phase II TBA Results) in ~Feb. If any of the cc's have ideas on how to address this issue please contact me.

Happy New Year, Y'all !

Dave Hargett

ps - Dana & I met with the editorial staff of the Greenville News a couple of years back and we have a standing invitation for a Sunday guest editorial to address the future of Lake Conestee.... we are waiting carefully for the right opportunity to play that hand in the most positive and effective manner possible.

864.467.0811 x113 office

864.467.9758 fax

864.787.8160 cell

[dhargett@pincongrp.com](mailto:dhargett@pincongrp.com)





Letters from readers  
Friday, December 27, 2002

### **Lake Conestee plan carries high risk**

Lake Conestee, once a 145-acre lake, consists primarily of contaminated sediment and about 20 acres of water. The Conestee Foundation plans to clean up the lake and create parks, trails and an education center. However, I do not believe the present plan for Lake Conestee to restore the dam and lake is the best option.

The dam is over 100 years old, which carries safety risks and liability costs if left in place. Removing the dam can restore river habitat, improve water quality, re-create new land for parks and improve public access to the river, and would save money required for continued upkeep of the dam.

If the lake is restored, contaminated soil would have to be removed. The sediment will have to be evaluated, processed and removed to a landfill. Does anyone know the long-term economic and ecological impact this will have on the river? It may be best to leave the contaminated sediment where it has been buried for the last 50 to 100 years.

April 2000's "The Reedy River Report: Managing a Watershed" provides a management plan to investigate the critical needs and resources of the Reedy River. The "Aquatic Health and Riparian Zone Management" section recommends assessment of the value and necessity of current dams in the Reedy River watershed, as well as the creation of a riparian buffer of 100 feet where it does not exist. I believe this should be the goal of the Lake Conestee area and not to restore the old lake and dam.

**Doug Head**  
*Greenville*



**Dave Hargett**  
<dhargett@pincongrp.com>

12/04/2002 04:12 PM

To: Alan Shirey <alan.d.shirey@sac01.usace.army.mil>, Jeanette Samaritan/R4/USEPA/US@EPA, Dennis McKinley <Dennis.McKinley@usace.army.mil>

cc: Angela Gorman <gormanak@columb34.dhec.state.sc.us>, Greg Hippert <ghippert@zapeng.com>, Jerry Wylie <jwylie@pincongrp.com>

Subject: Very Preliminary Interpretations - Lake Conestee TBA Round 2

Happy December Lake Conestee Fans

From my discussions w/ Jerry, it appears nearly all of the data have trickled back in from the November sampling extravaganza.

No major surprises, and the data are generally consistent with TBA round 1,,, some patterns a bit distinct from round 1 that may be a function of having a different lab... but in general we have similar patterns of contamination.....

Wherever our talented and dedicated sampling team collected subaqueous sediments, or sediments from former sloughs, we have, for sediments:

- lots of PAHs

- lots of metals (per Cr, Pb, Zn & others,,, although perhaps not quite as high in concentrations as round 1)

- scattered but sometimes high hits of pesticides (appears to be more DDT,D&E this time, plus more chlordane, & others)

- not very much PCBs

We've got this pattern essentially everywhere within the footprint of the lake, from the very northernmost neck, to west bay, northlake, east bay & south bay.

For the some of the samples along the shoreline zones, above the water line, the contamination is less, as we would have anticipated.

The background sediment samples will be very valuable in providing a good baseline for background.... those look good.

For water samples,,, nearly all samples appear to be relatively clean,,, a few small hits that could be related to turbidity,,, but we'll take a look, and feel those are the exception.

No fish data yet....

As regards the sediment contamination, once we've got all the data we can look a little more closely at spatial trends. We can see that there will be significant variability in concentrations for any parameter, simply because the depositional environment for the entire lake has a rather chaotic history of alternating high and low energy deposition, cross-cutting, and subsequent re-deposition, all of which is entirely as one would expect in a prograding deltaic environment. We could take several hundred deep cores and attempt to put the three-dimensional X temporal puzzle together, and that would be a great thesis project for a fluvial geomorphology student. But for the present task, the salient issue is the question of, what kinds of sediments are the contaminants most likely to be concentrated in....

One important issue that Jerry and I carry from much observation at Lake Conestee, is the concentrations of contaminants will likely be highly correlated with the organic and fines (silt + clay) proportion of the

sample matrix. To make sure we have a good handle on the nature of the matrix, we asked the lab to ship the residual materials back to us for visual inspection, and potentially to do some organic content & particle size analysis. From much past experience I think this would be a very worthwhile analysis to do, at least on some of the samples.

I recommend doing analysis of total organic carbon content (or other analysis for organic character) as well as the PSAs (hydrometer is really all we need).... for some representative set of the samples. Just wanted to point out that these items are out of scope and let you think about authorizing them as an additional, appropriate, out-of-scope activity. Let us know what you think and we can get estimates for analysis and for our time to do what we need to do.

We'll look to hear from you soon.

Thanks, Dave



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960

**MEMORANDUM**

**DATE:** September 16, 2002

**FROM:** Jeanette M. Samaritan, Environmental Scientist  
Economic Redevelopment & Community Involvement Branch *JMSamaritan*

**TO:** Mickey Hartnett  
Brownfields Project Coordinator

**SUBJECT:** Lake Conestee Targeted Brownfields Assessment

I received the Lake Conestee project on September 5, 2002 for review of the Draft - Work Plan Addendum dated August 9, 2002. On September 10, 2002, replacement pages for a revised Work Plan were received. I received a request from Alan Shirey, USACE, on September 12, 2002 for comments on the Work Plan. He accepted my inability to meet that deadline.

My comments are limited to the revised Work Plan Addendum. Evaluation of the Field Sampling and Quality Assurance Plans is the purview of SESD; that review was not requested of them because of the brief review period and the approval of previous plans.

**Site Description**

Lake Conestee is an impounded reach of the Reedy River with a history of industrial activities. Originally the lake was 145 acres but is reduced to 90 acres because of siltation. It is estimated to contain 2 million cubic yards of contaminated sediments. The lake is shallow at 4-5 ft depth. The groundwater table is high, 4-9 ft bgs in the east and 4-7 ft bgs in the west section. About two miles upstream of the lake is the Greenville wastewater treatment plant. Permit limits, compliance and industrial dischargers to the facility are unknown. The closed landfill for the City of Greenville is described as just above the lake and on the banks with no additional details. Below Lake Conestee, the Reedy River forms Lake Greenwood which serves as a public water supply. Plans are under discussion for power-generating plants with cooling water withdrawals in this area. Lake Conestee is not specifically on the CWA § 303(d) list (see Attachment A). Sections of the Reedy River below Greenville and Conestee are on the list for impairment to recreational use caused by fecal coliforms.

**Site Development**

The Conestee Foundation intends to transform the area into "a public greenspace and managed wetlands complex with an environmental teaching center. The managed wetlands will serve as a community resource and help achieve the larger goal of creating a green way along the entire

length of the Reedy River.”

#### Purpose of the Continued Investigation

The follow-up sampling is to assess releases of hazardous substances onto the property and determine the need for remediation or “release control measures” to protect human health and the environment.

#### Consideration of the Endangered Species Act

Under the ESA § 7(a)(2), Federal agencies are to ensure that the actions they fund, authorize, permit, or otherwise carry out will not jeopardize the continued existence of federally-listed species or adversely modify designated critical habitats.

On September 12, 2002, I requested that the SC Field Office provide me with information on federally-listed endangered or threatened species at Lake Conestee, SC along with any Federal Register notices about the species. This action begins informal consultation on the project. Roger Banks, Field Supervisor, FWS, informed me that he can only provide me with information on the county level, not specific to the site. If the list provided by FWS indicates that there may be listed species in the targeted Brownfields area, it will become EPA’s responsibility to follow through with the FWS. The timing of this determination is late since Phase I sampling has already occurred and Phase II will begin imminently.

Additionally, the State lists endangered or threatened species. The applicant will have to request that the State evaluate the property for any aquatic or terrestrial species which need protection.

#### Data Quality Objectives (DQOs)

Based on “Data Quality Objectives for Lake Conestee” dated October 5, 2001, Attachment B.

*DQO 2:* I would recommend that for DQO 2, the question be extended to characterize the Lake Conestee habitat as it presently exists. Some basic measurements in surface water that would help address the physico-chemical limitations of the waterbody would be dissolved oxygen, pH, conductivity, and temperature. Unfortunately, the critical period, summer, is not going to be evaluated. Moreover, since some segments of the Reedy River are on the CWA § 303(d) list, monitoring and consideration of the sources of fecal coliform, turbidity and other appropriate parameters may be warranted since suitability for recreational uses relates to detection of pathogens.

An inventory of aquatic and terrestrial plant and animal species would define what resource is actually being preserved and could overlap with the potentially-necessary evaluation of endangered and threatened species.

*DQO 4:* In defining the boundaries of contamination, the previous investigation surveyed wells. However, a satisfying consideration of potential sources of contamination to the property was not done. For example, the reader learns of a closed landfill upstream of Lake Conestee, but no

details are provided to demonstrate that there is no hydraulic connection between the landfill and the river or groundwater. Or, if leachate is collected and treated by the wastewater treatment plant. Since the land uses within the drainage area for Lake Conestee are not reported, it is not clear that, for example, if there are any nonpoint sources, stormwater outfalls or other relevant sources of contamination.

#### Sediment Sampling

It is not clear from the description of the sampling sites for the background sediment samples that the locations are not influenced by the landfill or wastewater treatment plant effluent. I recommend that the sites should not be located where they may be potentially impacted by these facilities.

Furthermore, I do not agree with the lack of characterization of the sediment samples taken at background and impacted sites. In addition to measuring the constituents of concern, it is important to minimally examine the grain size and total organic carbon content of all the sediment samples for comparison. Additional information like Eh and pH might also be measured. There is no discussion of the depth of these background cores and if they will be taken at depths similar to the impacted sites and composited. While the description of procedures states that vegetation will be removed from sediment before analyses, no mention of the fate of any benthic infauna is explained.

#### Fish Tissue Sampling

It is implied but perhaps it needs to be specifically stated that only recreationally-important fish will be analyzed; that is, exclude bait fish and juveniles. Also, the file shows an October 18, 2001 e-mail message (Attachment C) from Dave Hargett to A. Gorman et al, discussing SC DHEC fish tissue sampling at Lake Conestee. No reference is made in the revised Work Plan as to what was found in that study and how the present assessment would build on those findings.

#### EPA's Conclusions

Since the Corps requested a quick turnaround on the approval of the Work Plan and I am new to the Program, I would like to meet with you at your earliest convenience to discuss the results of my review in the light of your extensive involvement in the assessment.

Attachments (3)

NB:

*I also would have liked to have kriging of data and AFS-SEM done at sites where appropriate metals detected. - Too costly "*

*See e-mail to A. Shirley outlining concerns + USACE responses.*

*Conclusions involvement too late in project problems.*

# South Carolina 2002 CWA § 303(d) List Aquatic Life and Recreational Use Impairments

| LAKE GREENWOOD                                                  |       |        |           |             |     |  |    |   |  |
|-----------------------------------------------------------------|-------|--------|-----------|-------------|-----|--|----|---|--|
| REEDY FORK OF LAKE GREENWOOD AT S-30-29                         | S-022 | SALUDA | LAURENS   | 03050109080 | AL  |  | P  | 1 |  |
| REEDY FORK OF LAKE GREENWOOD AT S-30-29                         | S-022 | SALUDA | LAURENS   | 03050109080 | AL  |  | P  | 1 |  |
| CANE CREEK FORK OF LAKE GREENWOOD AT SC 72 3.1 MI SW CROSS HILL | S-097 | SALUDA | LAURENS   | 03050109080 | AL  |  | PH | 1 |  |
| LAKE GREENWOOD AT US 221 7.6 MI NNW 98                          | S-131 | SALUDA | GREENWOOD | 03050109080 | AL  |  | P  | 2 |  |
| LAKE GREENWOOD, RABON CREEK ARM, 8 KM N RD S-30-307             | S-307 | SALUDA | LAURENS   | 03050109130 | REC |  | PH | 2 |  |
| LAKE GREENWOOD, REEDY RIVER ARM, 130 YDS US RABON CREEK         | S-308 | SALUDA | LAURENS   | 03050109120 | AL  |  | FC | 2 |  |
| LAKE GREENWOOD, REEDY RIVER ARM, 150 YDS US RABON CREEK         | S-308 | SALUDA | LAURENS   | 03050109120 | AL  |  | P  | 1 |  |